

SPORT TRUCK SHOOTOUT! 10 TRUCKS—WHO WINS?

RADIO CONTROL

car action

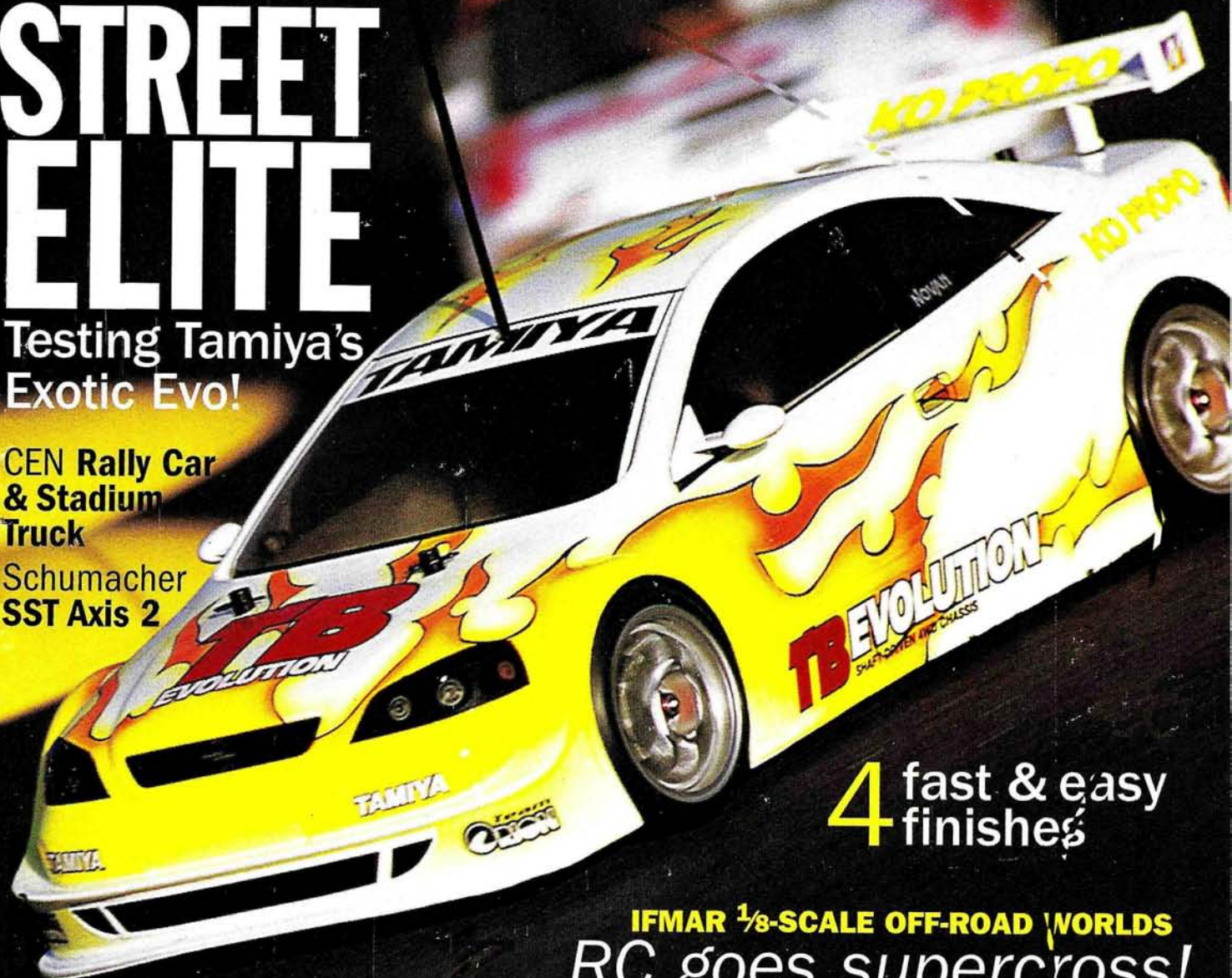
THE WORLD'S BEST-SELLING RC CAR MAGAZINE

STREET ELITE

Testing Tamiya's
Exotic Evo!

CEN Rally Car
& Stadium
Truck

Schumacher
SST Axis 2



4 fast & easy
finishes

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E-Maxx vs. T-Maxx

Clash of the Titans



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ON THE COVER (from top) The Swabmeister (Greg Vogel) laid out the killer cover shot and even painted the Tamiya Opel body himself (with Pactra's new water-based Acryl colors, if you're wondering). The wheels are Hobby-Tech Pinzettis with GS Racing anodized axle nuts. Meanwhile, the Traxxas T-Maxx takes a tug at the E-Maxx and comes up with nothin' but smoke.

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and a lot of fun
by Bob Hastings



Best of the Best

The product names change, but the question is eternal: "Should I get a Novak Cyclone or an LRP V7.1?" "What's better: a Traxxas 4-TEC or a DuraTrax Street Force?" "Which radio should I buy: Airtronics M8 or Futaba 3PJ?" Of the letters and email we receive, most ask for help with a buying decision. That's why we have so many product guides and "shootouts"; we know you're trying to figure out what to buy, and we know how hard it can be to pick the one truck, the one ESC, the one radio that will be the best for you. That is what you want, right? The product that is best *for you*.

I think what most of us really want to know is which product is best, period. *Just tell me which one is the best.* Now, that's a tough call. Let's consider the trucks we've tested in this issue's "2WD Electric Sport Truck Shootout." If you are an aspiring racer, I can say with confidence that the Associated RC10T3 RTR is the best truck in the shootout for you. It's built on a proven racing chassis; it shares all its parts with the kit versions of the T3; it will accept any T3 upgrade parts; it includes a high-quality ESC; it's fast; and it's tough. It's also the most expensive of the stadium-style trucks at about \$240. So is it the best? Not if all you have to spend is \$150. And not if you want to climb over roots and rocks. If that's the case, you should probably get a monster truck, not a racing truck. How much you have to spend and the type of driving you plan to do are factors that will make your "best" different from my "best," or the "best" that the hobby shop owner, or the guy on Tech Talk, or your friend swears by.

Nonetheless, we do make all kinds of "best" picks here at *Radio Control Car Action*. We do it with "Car of the Year" and "Truck of the Year"; we do it in our shootouts and "Head to Head" comparisons; and we invite you to do it with our annual Readers' Choice Awards (that reminds me; the ballot will be in the next issue!). It's always fun to talk about which products are best; sometimes it's fun because we agree; sometimes it's fun—or even more fun—because we don't. But one thing is for certain: no one is wrong. Sure, when *Radio Control Car Action* picks the "best," it goes into print and that lets us shout our opinion very loudly, but that doesn't mean you have to agree with it!

With the incredible diversity of the RC hobby today, there's something in it for everybody. We just want to help you choose—and entertain you along the way. Of all the goals we have here at *RC Car Action*, the goals of providing great entertainment and useful information are probably the best ones to have. That's one "best" I think we can all agree on.

Peter Vieira
Executive Editor

RADIO CONTROL car action

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Rebel Pipe

I saw the new CVEC pipe for the T-Maxx that exits the rear in the January '01 issue and was wondering if the pipe is race-legal; I remember reading that some CVEC pipes aren't. Is this one?
DANIEL EMORD

Sorry, Daniel; the CVEC pipe is not ROAR-legal. Here's what the rulebook says in rule 6-17 on page 19: "Exhaust pipes with movable parts are not allowed." That definitely applies to the moving piston inside the CVEC pipe.

I bet your local track won't care if you run one, especially in a T-Maxx class, which ROAR doesn't recognize. And if you aren't racing, you definitely won't have to worry about it!
—Pete

Go Electric

Hey Pete! Hope you don't mind me calling you Pete, but right now, I'm not worried about names. My name is William Hunsaker, and I'm 12 years old. Should I get a nitro or another electric? I like them both, but I'll tell you right now, I have no patience and I like to rig stuff up and not take the time to get a part. So what do you think? Mom and Dad are confused about which one I want, so help me out here, please.

WILLIAM

P.S. I loved the article on the different versions of the T-Maxx, especially the low-rider!

I'll tell Bob you liked his truck. Maybe if you email him every day, IN ALL CAPITALS, he'll give it to

you! No matter how many times Bob says "no" and asks you to stop emailing him, just keep doing it. He could cave; you never know.

It sounds as if you would do best with an electric kit. Better yet, get a ready-to-run, and make it a truck. There's a whole shootout full of them in this issue.
—Pete

Rustler Racer

I am going to get a Traxxas Rustler for Christmas, and I want to race it at a local track. The problem is, I don't know what I'll need to be competitive. My brother said that I should wait until the Associated RC10T3 RTR comes out, but I am not that patient. I don't have bottomless pockets, so if you do give me some advice, please list some good things that are cheap. Thanks for your help. And please print my email address so that other people who race Rustlers can help me. Thanks!
CHRIS COSSEY
dirtracer6988@hotmail.com

Hmmm, some good things that are cheap ... let's see ... Pez is good and cheap. They're just little bricks of sugar, but when they're being regurgitated by a plastic Chewbacca head, well, that's what makes 'em really special. An Etch-A-Sketch is good and cheap, and it's good for hours of fun; just don't try to draw diagonal lines or a circle because your head could explode. Seriously, Chris, you should check out the "2WD Electric Sport Truck Shootout" in this issue. The T3 and Rustler are



both in there, with info on which hop-ups to get, speed testing, and more.

—Pete

The Big Brush-Off

Thanks to you guys, I'm definitely going to get a Tamiya SprayWork airbrush. I've been wanting to try an airbrush, but I didn't want to spend a lot on equipment just to try it. I think that self-contained compressor will be ideal for my needs. Have you tried it with the new Pactra Acryl paints? [email]
BILL HERD

Glad you liked the article; Greg did a great job on it. I haven't tried the Pactra paints yet because I have a lot of Parma FasKolor on the shelf, but assistant editor Bob Hastings says the Acryl paints spray well. Bob does a lot of the body painting here, so he ought to know.

—Pete

Everything Fits Everything

I'm new to RC and recently got a Kyosho Ultima ST RTR for my birthday. I really like those Pro-Line Chevy Silverado bodies, but I don't know if those bodies are compatible with my truck because

they are all for Traxxas trucks. Do you know which body would fit my truck? I'm 15 years old, so I don't know a whole lot about RC, but the article you guys did a couple of months ago on the Kyosho Ultima STs really helped me set

up my truck; and just like you promised, it's a lot of fun to play with.

JEFF CHOU

Yorba Linda, CA

My first RC car was an original Kyosho Ultima, and it was technically a buggy, but by swapping wheels, tires and bodies, it was (at various times in its life) a stadium truck, a Porsche 911, a sprint car, a monster truck, a rally car, a funny car and a Baja Bug. I don't think any of those bodies ever said "Fits Kyosho Ultima" on the header card, but I made 'em fit. Sometimes, I had to buy new body posts (DuraTrax and Parma make good ones in various sizes), and I didn't always use the factory trim lines for the wheel wells, but they all looked good. I think any body designed for a Traxxas Rustler (or another stadium-type truck) could be made to fit your Ultima ST. Ask your local hobby shop if you can test-fit a Pro-Line Silverado over your Ultima chassis before you buy, just in case there is some impossible hurdle to making it fit, but I bet you can get it to work.

—Pete

YOU SAID IT Brian's Race

My letter about the generosity shown by Team Losi in supporting a charity race for the American Cancer Society was published in the December issue of RC Car Action. The race was held on August 6, 2000, in honor of Brian Raff, a 13-year-old racer who was battling cancer. I am sorry to report that Brian died on October 1, 2000.

Brian was a great kid who was loved by all those who came to know him, and he was an inspiration to all who raced with him. At the track, he was always cheerful, friendly and uncomplaining, no matter the extent of his pain. He was always interested in others and helpful in the pits. He was always very fast. He was the kind of person we all hope to be.

This year, we will hold the 2nd Annual Race Against Cancer to raise more funds for the American Cancer Society, so we can help to find a cure for the disease and provide support services to those who have cancer. The competition will be called "The Brian Raff Memorial Race" and will be held on April 21 and 22, 2001, at the Fastrax racetrack in Ridgecrest, CA. Once again, we

will have racers from a number of top racing teams, classes to ensure fun for all who participate, special race events, a raffle for all kinds of RC products and many other scheduled activities throughout the weekend. Team Losi will again participate, along with many other returning and new sponsors. To contact the race promoters, for more information on how to become a sponsor, and/or to register for the race, please see the information posted at <http://www.fastraxrc.com> or call (760) 377-1193.

We hope your readers will join us for what should be a fantastic weekend of racing for a worthy charity and in honor of Brian Raff: a wonderful friend and fellow racer.

BILL DEEM, Ridgecrest, CA

Bill, I'll make sure you get some decals, T-shirts and subscriptions to give away at the "Race Against Cancer." Readers: if you can attend the race, go for it; if you can't, why not make a donation to the American Cancer Society in Brian Raff's name? You'll feel pretty good when you do.

—Pete

WRITE TO US! We welcome your photos, drawings, comments and suggestions. Letters should be addressed to "Letters," Air Age Inc., Radio Control Car Action, 100 East Ridge, Ridgefield, CT 06877-4606 USA. Letters may be edited for clarity and brevity, and each must include a full name and address or telephone number so that the identity of the sender can be verified. We regret that, owing to the tremendous numbers of letters we receive, we can't respond to every one.

EMAIL ■ Derek Buono: derekb@airage.com ■ Chris Chianelli: chriscc@airage.com ■ Bob Hastings: bobh@airage.com ■ Kevin Hetmanski: kevinh@airage.com
■ Steve Pond: stevep@airage.com ■ Peter Vieira: peterv@airage.com ■ Greg Vogel: gregv@airage.com

Carbon Fighter

When Mike Ogle (Team Associated's marketing guy) asked me if I wanted to see a picture of his latest drag project, I said, "Sure, why not?" I had no idea it would be an all-carbon-fiber, 1/4-scale, gas-guzzling behemoth! I'll let Mike tell you about his newest set of wheels:

"The 'Black Max' is a quarter-scale, fifty-two-inch-long, twenty-three cubic centimeter, Zenoah-powered funny car. The aluminum-panel frame and carbon-fiber body were scratch-built by Jeff Schmidt of San Jacinto, CA. Futaba PCM radio gear is used with Multiplex digital servos. The car also features a third-channel reverse system for backing up from burnouts. The Zenoah engine was tweaked by SEI Racing's Jeff Devlin, and the drag clutch was prepared by Ken Jones. The total package weighs in at a featherweight—for these cars—twenty-three pounds, which breaks down to about one pound per cubic centimeter of displacement. The total investment is probably in the twelve- to fifteen-hundred-dollar range, but after you get past the initial costs, you only feed it 'regular' pump gas and a little motorcycle two-stroke oil, so it's quite easy and inexpensive to maintain. The car runs in the West Coast MHRA [Model Hot Rod Association] series at a drag strip in Rialto, California. The best ET is in the three-point-two-second range at forty-four miles per hour for the scale eighth mile."

For more club info and photos, visit www.quarterscalemtrsports.com.



BY CHRIS
CHIANELLI



TAKE TWO TRINITY MAXX PAXX

If you have an E-Maxx, you'll need a pair of packs to power it. Trinity's Maxx PAXX are built with your truck in mind; they use 1900mAh cells for long run times with plenty of punch. And since the packs—I mean PAXX—use Ni-Cd cells, you can charge them with any RC car battery charger. According to Trinity, a Zip-Pack-equipped E-Maxx turned in a 6.5-minute run, while a pair of Maxx PAXX kept the action rolling for more than 8 minutes. That's like getting a "free" charge after every four runs! Since the E-Maxx requires two packs, Maxx PAXX are sold in pairs. You can use them in other vehicles, too.

Trinity Products Inc., 36 Meridian Rd., Edison, NJ 08820; (732) 635-1600; fax (732) 635-1640; www.teamtrinity.com.

Most Valuable Power

REEDY MVP STOCK MOTOR

DID YOU KNOW THAT MIKE REEDY now has 22 IFMAR World Championship wins credited to his motors? Obviously, Mike knows a thing or two about electric horsepower, so his latest rebuildable stocker, the MVP, should be a hot item. According to Reedy, the MVP's C4 magnets are 15 percent stronger than any other current motor's, and the MVP offers "no compromises—high torque and high rpm."

Additional features include heavy-duty solder tabs, Factory Blue endbell and heat sinks, 1.4mm Max-Field can, new, cooler running vents and a high-rpm, 6HL split-rotor armature. The MVP will also be sold as a "Plus" model with no. 767 serrated competition brushes.

Reedy Modifieds/Team Associated, 3585 Cadillac Ave., Costa Mesa, CA 92626; (714) 850-9342; fax (714) 850-174; www.rc10.com/reedy.



RESERVOIR DOGS Progressive Ultimate Maxx shocks

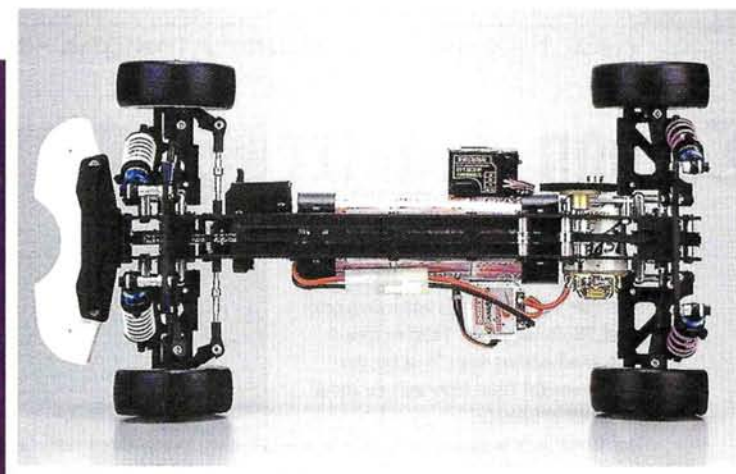
Progressive Suspension announces the Ultimate Maxx Shock Absorber Kit. It includes a complete set of eight EDC-2 shocks with reservoirs and springs. The EDC-2 shocks feature massive 3/16-inch-diameter shafts, 4-position external damping adjustment and Progressive's unique Piggyback reservoirs. The shock bodies and reservoirs are machined aluminum, and you'll find Teflon pistons and closed-cell volume compensation foam inside. The reservoirs are polished and anodized in your choice of six colors (gold, purple, black, blue, red, or natural). Special progressive-rate springs developed specifically for the T-Maxx are also included.

Progressive Suspension, 11129 G Ave., Hesperia, CA 92345; (760) 948-4012; fax (760) 948-4307; www.progressivesuspension.com.

STICK IT TO 'EM KYOSHO KX-1

If you build it, they will come ... maybe. Kyosho isn't sure whether the KX-1 will ever reach production, but its minimalist design is nothing if not compelling. As you can see, the ladder chassis is extremely narrow—about 1/3 as wide as a stick pack, not even as wide as the steering servo. Look closely; you can see the aluminum standoffs that hold the suspension arms to the chassis, and what's this—a single-belt drive train? We all know Losi is going the one-belt route; could this be the shape of things to come? That depends on you; email me at chrisc@airage.com with your opinions, and I'll pass them on to the Kyosho guys.

Kyosho; distributed by Great Planes Model Distributors, P.O. Box 9021, Champaign, IL 61826-9021; (800) 682-8948.



BUILD BETTER TRINITY SHOCK DYNO

Don't let mismatched shock lengths give your car a case of incurable tweak! Trinity's new Shock Dyno makes it easy to precisely measure and adjust shock length, and there's space to stand four filled shock bodies while you do something exciting, like thread turnbuckles. And that reminds me: you can also use the Shock Dyno to make sure your camber links and tie rods are of equal lengths. Trinity offers two versions of the Dyno to suit off-road shocks (as pictured) and touring car dampers.

Trinity Products Inc., 36 Meridian Rd., Edison, NJ 08820;
(732) 635-1600; fax (732) 635-1640; www.teamtrinity.com.



SHOCKING NEWS!

**The Choice Of Matt Francis, Brian Kinwald
David Spashett, Josh Cyrul & Barry Baker**

Available in 10-15-20-25-30-35-40-45-50-55-60-70-80-90-100
Plus the following "1/2 Weights" 27.5-32.5-37.5-42.5

**1/2 Weights....The Idea So Good
The Competition Had To Steal it**

\$3.50

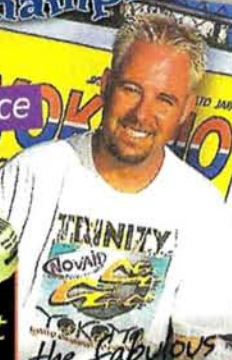
100% Pure Silicone
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Tolerance of .001% Or Less!

The Champion's Choice

**TRINITY 40 Weight
Front & Rear**

*the fabulous
barry baker*

reedy race of champions



QUANTUM LEAP

Cleveland-winning LRP Quantum ESC to debut in U.S. "soon"



I know, I know; "soon" isn't very satisfying, but at least you know the Quantum is coming! We shot this one inside Billy Easton's TC3; David Spashett also used a Quantum to take 1/2 Mod in Cleveland. Most recently, LRP informed me that Atsushi Hara, the current IFMAR ISTC world champion, used an LRP Quantum to win the ISTC World Cup event in China. Craig Drescher, Yukijiro



Umino and David Spashett followed Atsushi across the line with Quantum power, while the rest of the field ran LRP V7.1s.

That's an all-LRP A-main! As soon as we can get our hands on the tiny Quantum, we'll give it a full test.

LRP Electronics, distributed by Associated Electrics, and available from LRP Electronic, Wilhelm-Enssle-Strasse 132-134, 73630 Remshalden, Germany; 1149-7181-4098-0; www.lrp-electronic.de.

The TC3 pictured here is Billy Easton's, fresh from the Cleveland Indoor Championship (he won the touring class). Billy's car is basically a stock Factory Team TC3, which rolls out of the box equipped as shown here (minus the electronics). Otherwise, you get it all:

Teflon-sealed bearings, Factory Blue titanium turnbuckles and blue aluminum screw kit, front and rear swaybars, Factory Team battery brace, Factory Team threaded-body shocks and all of Associated's molded graphite parts. The kit even includes a dummy transponder and droop gauge!

You'll need to add your own wheels, body and tires.

Factory Team; distributed by Associated Electrics, 3585 Cadillac Ave., Costa Mesa, CA 92626-1403; (714) 850-9342; fax (714) 850-1744; www.rc10.com; www.teamassociated.com.

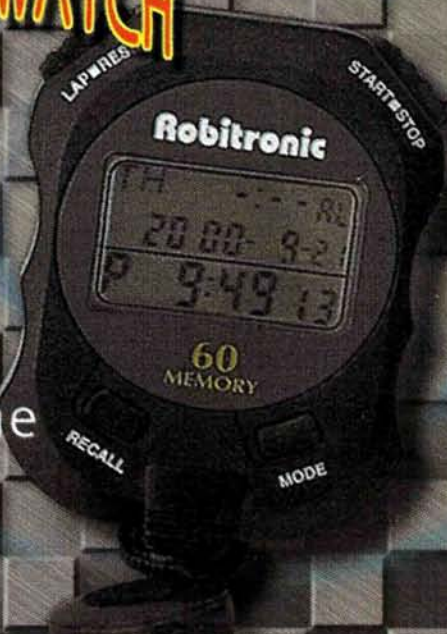


Just Like Billy's!
FACTORY TEAM TC3

TIME MACHINE

NEW ROBITRONICS RACERS STOP WATCH

- Time your run
- Get your lap total
- Get your fastest lap
- Get your slowest lap
- Get your average lap time
- RS130, \$49.99



TRINITY



PRO-LINE GMC SIERRA FOR ASSOCIATED RC10GT RTR AND TEAM LOSI TRIPLE-XNT

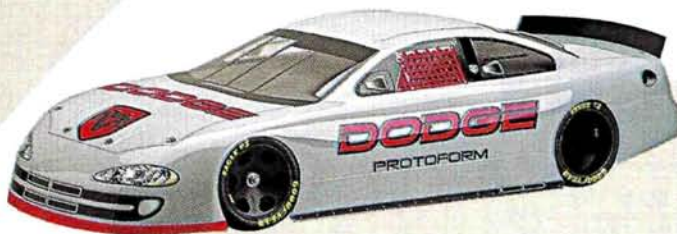
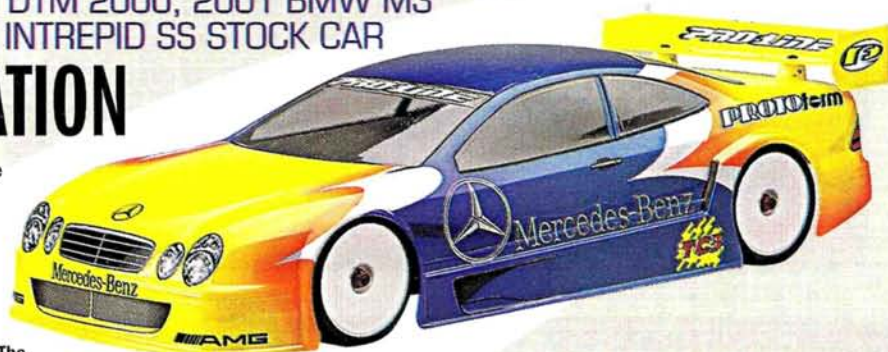
Add-on spoiler? Check. Hardware? Check. Window masks? Check. Decal sheet? Check. Looks like yet another good-lookin' Pro-Line body! The GMC Sierra is available in versions to fit the GT RTR and Triple-XNT, is pulled from .040 Lexan and gives your race rig 2001 truck styling.

Pro-Line/Jaco, P.O. Box 456, Beaumont, CA 92223; (909) 849-9781; fax (909) 849-2968.

SIZZLING SIERRA

FOLLOW PROTOFORM DTM 2000, 2001 BMW M3 SEDAN, 2001 INTREPID SS STOCK CAR PROTOFORMATION

The DTM and M3 are both 190mm shells with the usual Protoform good stuff: IFMAR-legal wing and hardware, window masks, and detailed decal sheets. For you oval guys, the new Dodge Intrepid should be the hot ticket, thanks to a versatile "Intermediate" design for good performance on both carpet and paved-oval tracks. The Intrepid is available in "Regular" and "Light" Lexan and includes window masks and an add-on wing as well as decals for the headlights, grill, window net and other stock car details.



Military Muscle and Civilian Style HPI NITRO MX-1 AND 200MM LEXUS GS400



Hummer style comes to the HPI Nitro MT and Nitro Rush, thanks to the MX-1 shell, which fits both trucks. The hard-edged military look

is matched with vinyl decals for the window moldings, headlights, grills, taillights, HPI logos and other details, as well as a complete set of military decals including a pick, shovel, rope, toolboxes and more. Like other HPI bodies, the MX-1 is covered with peel-off overspray film and includes window masks. While I'm talking HPI bodies, I'll also let you know that the popular Lexus GS400 shell is now available in 200mm to fit all nitro sedans, and it includes a race wing as well as a "street" wing for you boulevard cruisers out there.



HPI Racing, 15321 Barranca Pky., Irvine, CA 92618; (949) 753-1099; fax (949) 753-1098; www.hpiracing.com.

Win a \$500 gift certificate from DuraTrax! Send a sharp, uncluttered, well-exposed color photo of your vehicle (no Polaroids or computer printouts), and a brief description, to Readers' Rides, RC Car Action, 100 East Ridge, Ridgefield, CT 06877-4606 USA. If we publish your photo, you'll receive a free RC Car Action decal sheet and will be eligible to win a \$500 gift certificate from DuraTrax in the "Readers' Rides of the Year" contest. Write your address and phone number on your letter and on the back of every photo you send. One vehicle per photo, please. Good luck!

Readers' Rides

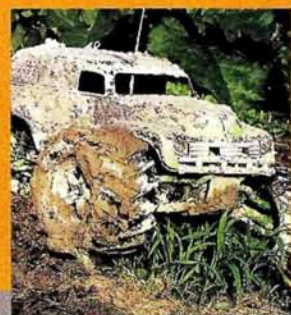
Jason Nault, Rochester, NY HPI RS4 Pro 2

This Audi Quattro Avant wagon, an HPI Pro 2, is Jason's first touring car. He set it up with a host of Alien accessories, an RRP aluminum pulley, MIP clutch, CEN 2-speed transmission, RPM wheels and Lunsford turnbuckles. The body was air-brushed using Parma FasKolor and "Big Flames" vinyl mask.



William Arnold, Richton Park, IL Traxxas T-Maxx

William swapped the stock Traxxas Pro .15 engine in his T-Maxx for a Trinity/Picco Monster 15 engine. He says the engine and CVEC tuned pipe plus the change to a 16-tooth clutch bell give the truck extra mudslinging power. Looks like he's not afraid to prove it, either!



Gage Wallen, Aripeka, FL Traxxas Stampede

This Traxxas Stampede has come a long way since its original configuration. It now features RPM accessories, an independent cantilever suspension system, a hand-machined lower chassis and relocated electronics to lower the CG. Gabe custom-painted the Pro-Line Chevy Silverado body to finish off the creation that he calls "The Zillapepe."



Anthony Durand, Utica, MI Associated RC10GT

This stadium racer features hop-ups that include titanium turnbuckles, graphite shock towers and an MIP onboard temperature gauge to monitor the O.S. engine. A Pro-Line F-150 and RPM wheels complete the hot look.

Readers' Rides

Les O'Dell, Everett, WA Trinity EV10SS

This Winston Cup replica has Peak 2000 batteries and a Trinity P2K pro stock motor to power it around the oval. Les uses a Novak Cyclone ESC, a Novak XXL receiver and a JR 3025 steering servo, as well. The Jeff Gordon "No Bull 5" graphics atop a Protoform Monte Carlo body are from Slix.



Antonio Barrera, Houston, TX DuraTrax Nitro Quake

Just because your monster truck comes ready to run doesn't mean you can't personalize it a bit. Antonio added a Hitec Lynx 3D radio and HS-945MG high-torque steering servo to control the Quake, plus an OFNA/Picco .21 motor for added speed. A set of front and rear Torsen diffs along with several GS Racing accessories add the finishing touches.

Paul Losito, Lexington, SC Associated RC10GT Team Edition

This purple and white stadium truck is ready to race with its 0.5 .12 CZ-R engine, DuraTrax bearings, Stage II head and Pro-Line wheels. Now Paul just needs to go out and find some dirt.



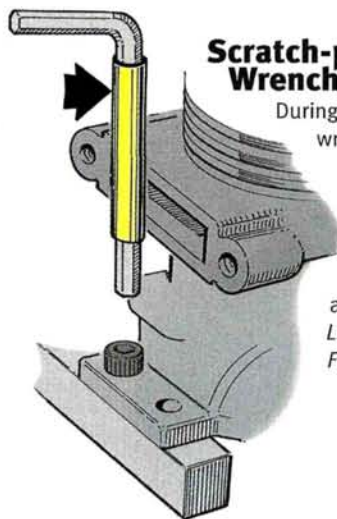
Jason Maxfield, Paso Robles, CA HPI RS4 Pro 2

Jason's HPI Pro 2 Alfa Romeo 156 has a Robinson Racing black aluminum pinion, a Novak Cyclone TC speed control and an Airtronics XL2P radio. A set of HPI rims and tires complement the blue, silver and black paintwork.

Pit Tips

BY JIM NEWMAN

WIN AN OFNA Z-10 RALLY! Radio Control Car Action will give a 6-month subscription (or extend an existing subscription) to the author of each idea used in "Pit Tips." "Top Tip" winners receive an OFNA Z-10 Rally kit. All published "Pit Tip" authors receive an OFNA yo-yo. Send a rough sketch to Jim Newman, c/o Radio Control Car Action, 100 East Ridge, Ridgefield, CT 06877-4606 USA. BE SURE YOUR NAME AND ADDRESS ARE CLEARLY PRINTED ON EACH SKETCH, PHOTO AND NOTE YOU SUBMIT. We're unable to publish many good tips because we don't have the sender's name and address. Please note: because of the number of ideas we receive, we can neither acknowledge every one nor return unused material.



Scratch-proof Allen Wrench

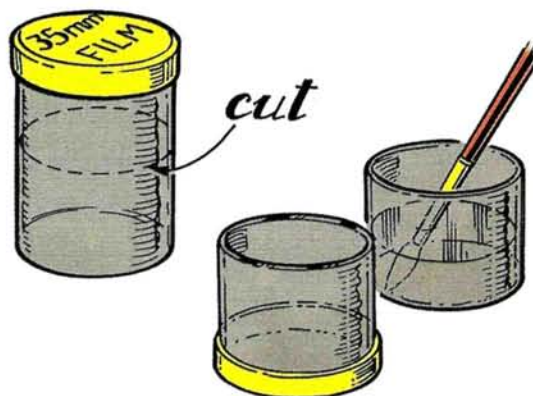
During engine installation, Allen wrenches can scratch your engine's exhaust port and cause a leak at the joint. Protect the engine surface by placing a sleeve of heat-shrink around the tool.
LEON BRANDON
Farmersville, TX

Paint Saver

A 35mm film container is unaffected by most solvents, so it is great for mixing RC body paint; the snap-on lid prevents spills during storage.

GORDON RAE

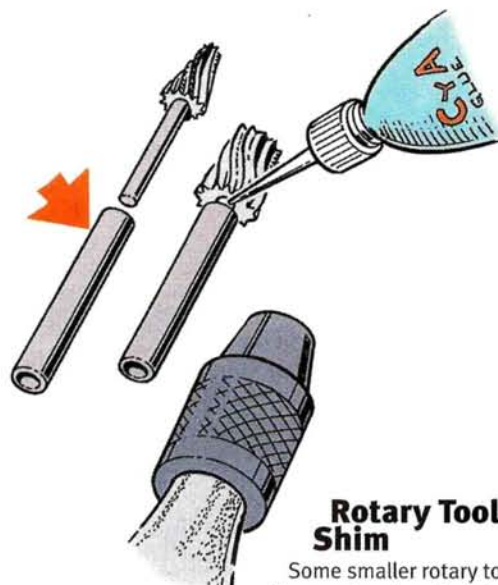
Great Malvern, Worcester, England



More Paint Capacity

Airbrush paint cups are typically too small, and that means frequent stops to refill. Try soldering a baby-food jar lid (a) to the airbrush pick-up tube (b). Drill a small vent hole in the lid (c) and now, using a baby-food jar as a reservoir, you can paint your RC bodies without stopping to reload.

Henry Loos
Waterford, NY



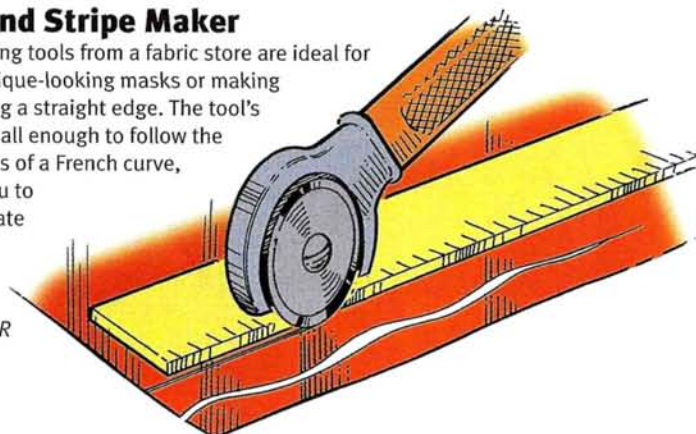
Rotary Tool Shim

Some smaller rotary tool bits require changing the chuck to fit properly. Instead, CA a brass sleeve into a standard-size collet to increase the tool's shaft diameter for a better fit.
COLIN CAMERON
Grayslake, IL

Mask and Stripe Maker

Rotary cutting tools from a fabric store are ideal for creating unique-looking masks or making stripes using a straight edge. The tool's wheel is small enough to follow the tight corners of a French curve, allowing you to make intricate designs.

BOB HORTMAN
Portland, OR

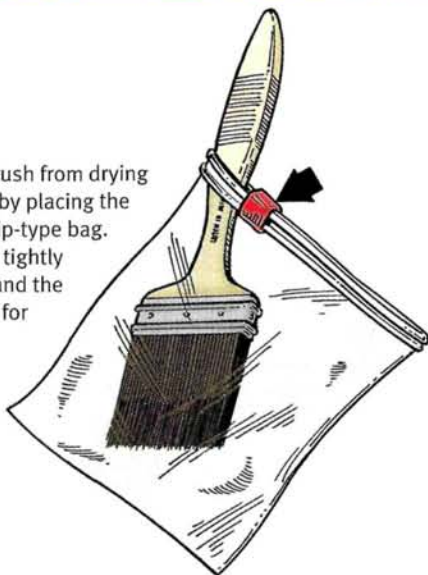


Pit Tips

Brush Bag

Prevent your paintbrush from drying out while not in use by placing the bristle portion in a zip-type bag. Slide the bag closed tightly around the handle, and the brush will stay fresh for several days.

JOHN MARTIN
Racine, WI

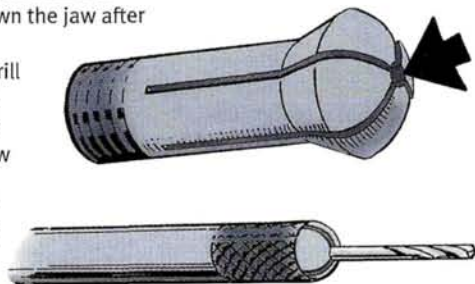


Mini Drill

A standard hobby-knife handle can double as a handy pin vise. Drill out the chuck of the handle to the desired size and clamp down the jaw after inserting the appropriate drill bit. You'll find many uses for this handy new tool.

KARL BYMAN
Longview, WA

TOP TIP

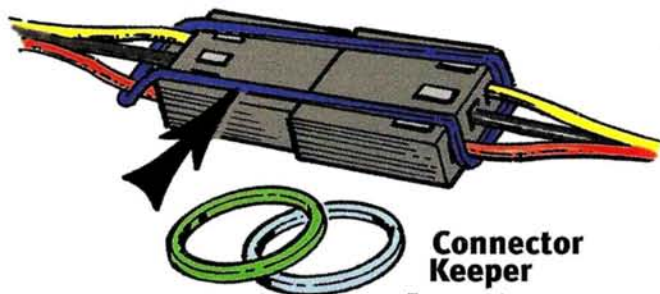
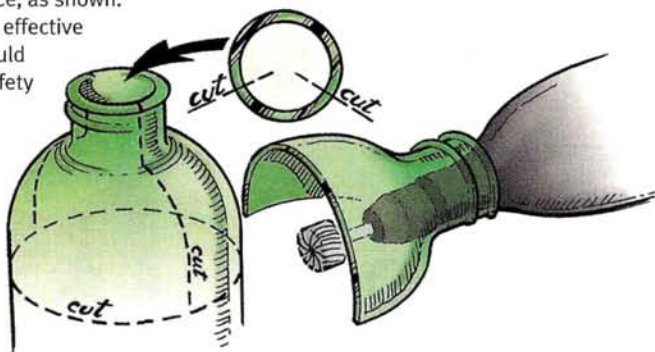


Debris Deflector

Here's a simple shield to protect against debris flying off your rotary tool. Remove the upper portion of a large soda bottle and snap it into place, as shown.

While this is an effective guard, you should always wear safety glasses when operating a rotary tool.

DARRYL CARPENTER
Goderich, Ontario, Canada



Connector Keeper

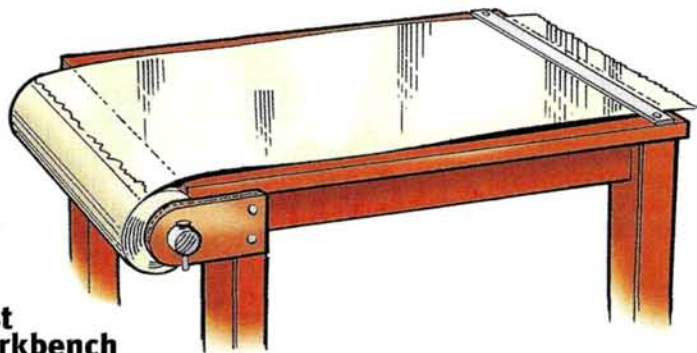
To prevent your servo and battery-box wires from separating, pick up a few rubber bands from the orthodontist's office. The small rubber bands hold the connection together without chafing the wires.

MICHAEL SAPONARA
Flushing, NY

Fast Workbench Cleanup

If your workbench always seems cluttered and stained, this is a fast, inexpensive solution. Buy a large wax paper roll as found in most butcher shops and delis. Mount the roll on one end of your bench, and stretch the paper under an aluminum strip at the opposite end. When it's time to clean up, just remove the old paper and pull out a fresh length.

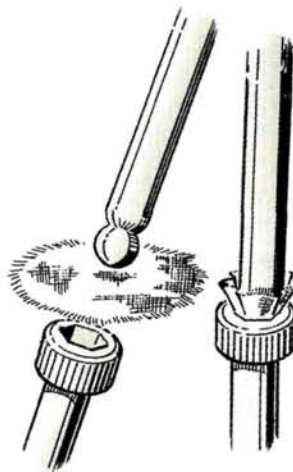
DAN LUCHACO
Sayre, PA



Recessed Screw Solution

A deeply recessed Allen-head screw can be difficult to replace. Next time, use a small piece of paper towel to make the wrench fit more snugly into the fastener. This will allow you to reach the hole without dropping the screw into the chassis.

ASHLEY WILSON
Virginia Beach, VA



Troubleshooting

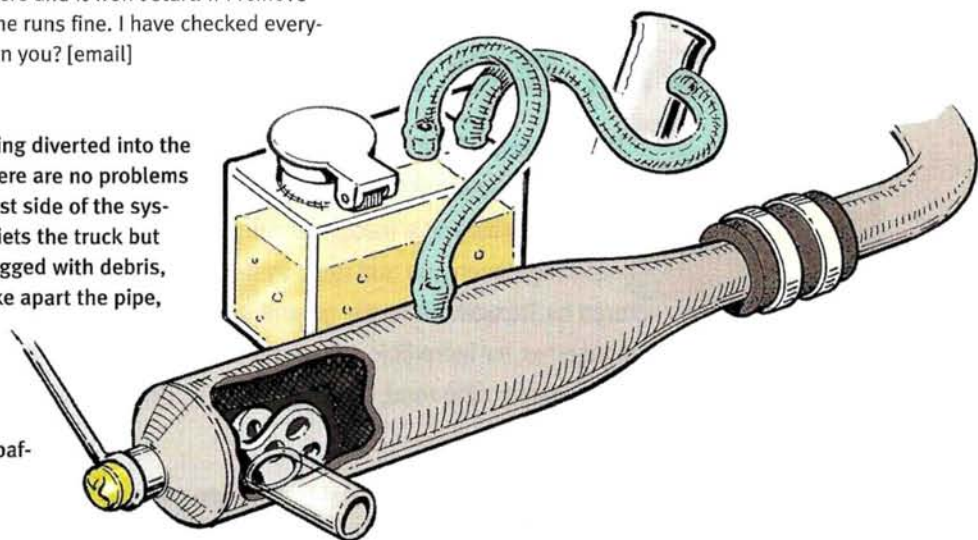
BY DEREK BUONO • ILLUSTRATIONS BY JIM NEWMAN

Leaky Rustler

I own a Traxxas Nitro Rustler, and I am having trouble getting the engine to run properly. When I try to start the engine, fuel leaks out everywhere and it won't start. If I remove the fuel line from the tank's pressure fitting, the engine runs fine. I have checked everything and cannot figure out why this is happening; can you? [email]

KEN COLEMAN

It seems as though too much exhaust pressure is being diverted into the fuel tank. Go through the fuel system and be sure there are no problems there first. Then it is time to take a look at the exhaust side of the system. The plastic tuned pipe contains a baffle that quiets the truck but also creates greater backpressure. If the baffle is clogged with debris, this will channel more exhaust into the fuel tank. Take apart the pipe, clean the baffle and check for any damage. Replace the baffle if it's damaged, and reassemble the pipe; this should take care of the flooding problem. To prevent this from happening again, I suggest you upgrade to Traxxas' aluminum tuned pipe; it has no baffles to clog, and your Rustler will perform better.



New Traxxas Aluminum Shock Components Work With Your Stock Parts!

T-Maxx Blue Shock Bodies



CNC machined, blue anodized aluminum shock bodies, sold in pairs. RRP 8511

Blue Lower Spring Retainers



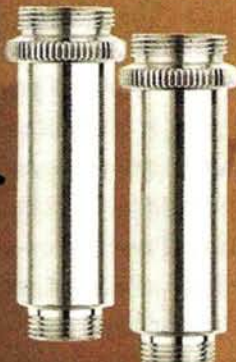
Machined, blue anodized aluminum retainers, sold in pairs. RRP 8516

Aluminum Upper Spring Retainers

Machined upper spring retainers, sold in sets of 4. RRP 8530 8mm, RRP 8520 4mm



T-Maxx Silver Shock Bodies



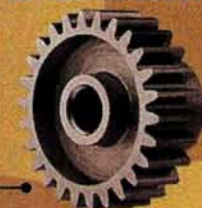
CNC machined, natural silver aluminum shock bodies, sold in pairs. RRP 8510

Silver Lower Spring Retainers



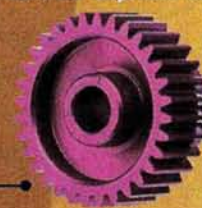
Machined, natural silver aluminum retainers, sold in pairs. RRP 8515

48P Absolute Series Pinions



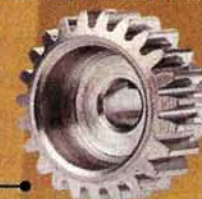
Super hard, lightened and cut with unmatched precision. Great with any spur, but with an Absolute spur, even off noise is gone! Available in 48P in 16T thru 28T sizes. RRP 1416 - RRP 1428

48P / 64P SuperLite Aluminum Pinions



They're lightened, hard coated and precision cut. Available in 48P in 16T thru 28T, and 64P in 24T thru 38T. RRP 30XX (48P) and RRP 31XX (64P). Only \$5.25

48P Hard Nickel Plated Steel Pinions

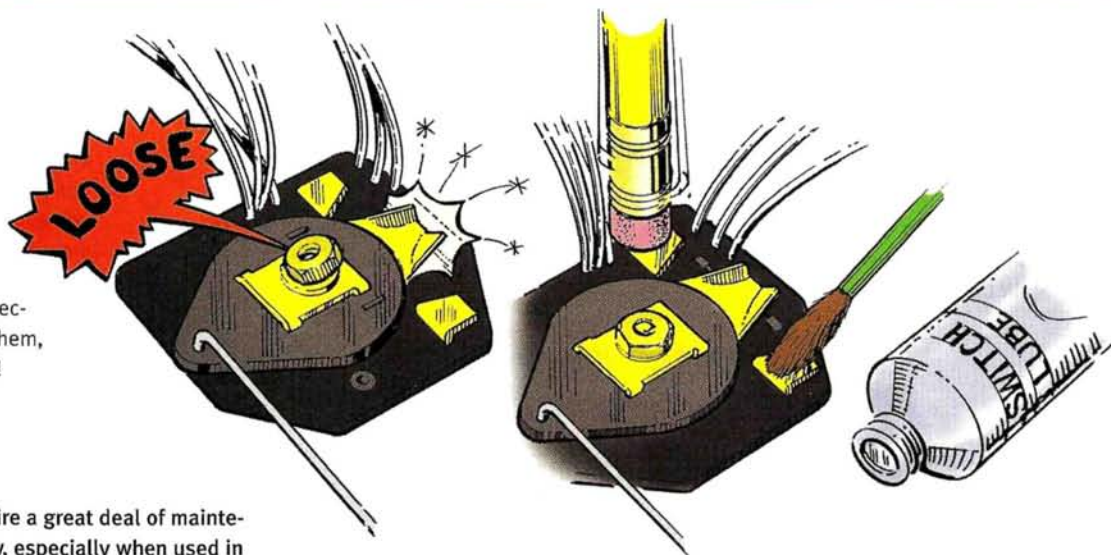


These precision cut gears have an extremely hard coating that makes them really last. Available in 12T thru 35T. RRP 1012 - RRP 1016

One-Speed Clod

I have a Clod Buster that is a little more than a year old. The speed control hesitates for about 1 second and then goes full throttle. I tried to figure out the problem and found some loose connections on the speed control. I tried to fix them, but now I don't have full throttle reverse! What's wrong? [email]

GERRIT BULTENA



Mechanical speed controls (MSCs) require a great deal of maintenance to keep them functioning properly, especially when used in high-amp-draw applications while exposed to lots of dirt and dust—a good description of the conditions in which you run your Clod. Proper preventive maintenance includes frequent cleaning of the speed control's contacts (a rubber eraser works well) and regular application of switch lubricant (like all Tamiya kits with MSCs, your Clod includes a tube of the stuff). The lube reduces the arcing (sparking) that occurs when the wiper arm moves from contact to

contact; arcing pits the contacts and can cause the development of small gaps that make some of the speeds go dead (as you have discovered). To get rid of MSC gremlins forever, consider an electronic speed control (ESC); they are much more reliable and will save you time and money in the future. Novak and LRP make ESCs that can handle dual-motor 4WD trucks.



1999 World Cup and National Champion

"I only care about performance, and that's why I run Robinson Racing gears and slipper clutches exclusively."

— Richard Saxton

www.robinsonracing.com

Rustler/Stampede/Bandit/Sport Nitro/Electric Sun Gears



CNC Machined from bar stock, these hardened, Sun Gears will last longer in your Traxxas machine. RRP 8500

NEW T-Maxx Aluminum High Performance Brake Kit



New, lightweight aluminum high performance brake kit, includes bigger, more aggressive brake pads and steel backing plates. One piece vented rotor minimizes side-to-side wobble. RRP 8560

T-Maxx Vented Flywheels



Aluminum vented flywheels move air over clutch bell, improving performance and cooling. RRP 8551 Blue, RRP 8550 Natural Silver

Hardened Steel Spur Gear With Ball Bearing



Precision CNC machined from solid steel, and then hardened, these spurs will last and last. RRP 8572 T-Maxx and Nitro Rustler, RRP 8565 Nitro Stampede



ROBINSON RACING PRODUCTS

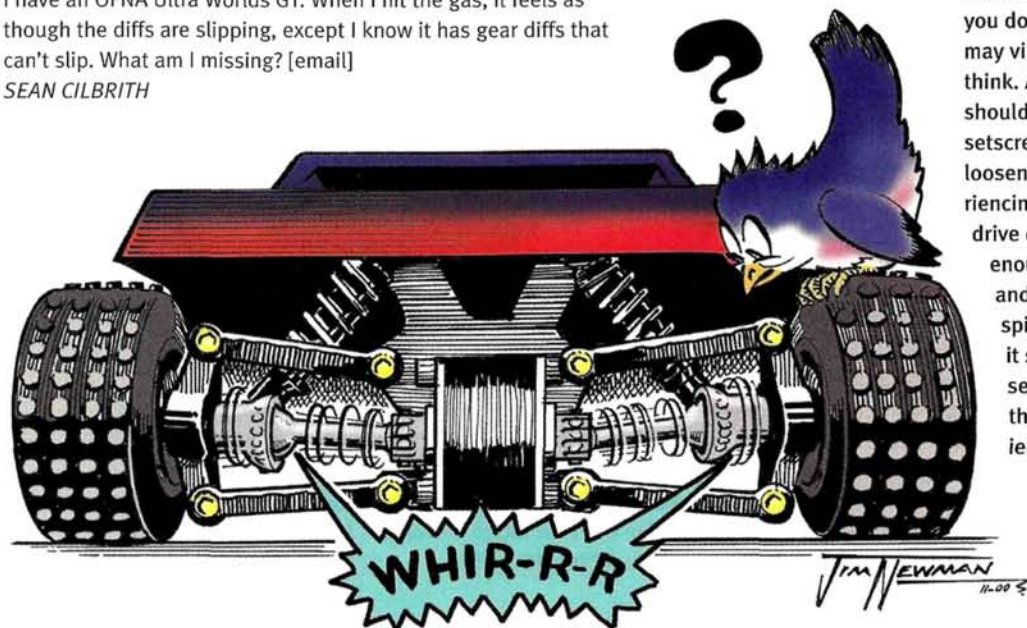
4968 Meadow View Drive · Mariposa, CA 95338 · Voice 209.966.2465 · Fax 209.966.5937

Troubleshooting

Slipped Diffs

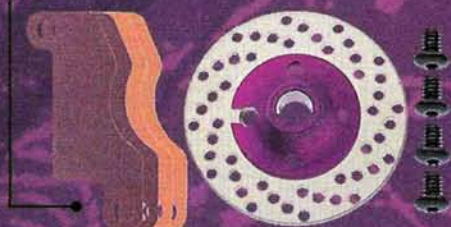
I have an OFNA Ultra Worlds GT. When I hit the gas, it feels as though the diffs are slipping, except I know it has gear diffs that can't slip. What am I missing? [email]

SEAN CILBRITH



Eighth-scale buggies put some serious torture on the drive train, and if you don't keep an eye on it, things may vibrate loose faster than you think. After every run or two, you should always check the screws and setscrews to see whether they have loosened. The problem you are experiencing is probably caused by a loose drive cup. It might be just tight enough to grab the output shaft and "feel" tight when you try to spin it by hand, but under a load, it spins on the shaft. Check each setscrew for tightness, and apply thread-lock to any that seem easier to turn more than they should.

RS4 Nitro Aluminum Brake Kit



Lightweight aluminum, variable braking system. RRP 1575

RS4 Nitro Vented Flywheel



Aluminum vented flywheels move air over clutch bell, improving performance and cooling.
RRP 1570
RRP 1571 Pull Start

Stealth Sedan Spurs



These precision machined spur gears are super quiet. They're available in 48P in 60T thru 96T sizes, and fit any HPI electric car or truck.
RRP 1860 thru RRP 1896.

RS4 Nitro Small Aluminum Drive Pulleys



Hardened drive pulleys, sold in pairs.
RRP 1538

RS4 Top Shaft Pulley



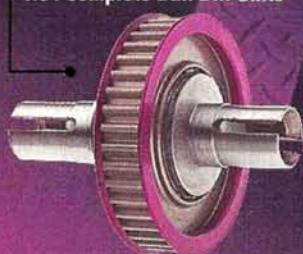
One piece pulley and shaft are precision cut and hard anodized. Purple anodized side flanges are pressed on. RRP 1527

RS4 / Pro / Pro2 / Nitro Aluminum Outdrives



40% lighter than stock ball diff outdrives. RRP 1585

RS4 Complete Ball Diff Units



Hardened steel outdrives, ground and polished thrust washers, 2 5x8mm ball bearings, and aluminum pulley.
RRP 1590 Electric
RRP 1595 Nitro

RS4 Diff Pulleys



Precision machined, hard anodized aluminum diff pulleys.
RRP 1539 nitro sedans
RRP 1528 electric sedans

RS4 Nitro Lightened Gear Adapter



This lightened gear adapter includes a machined nylon spur that's tougher than the stock gear and will last longer.
RRP 1535

www.robinsonracing.com

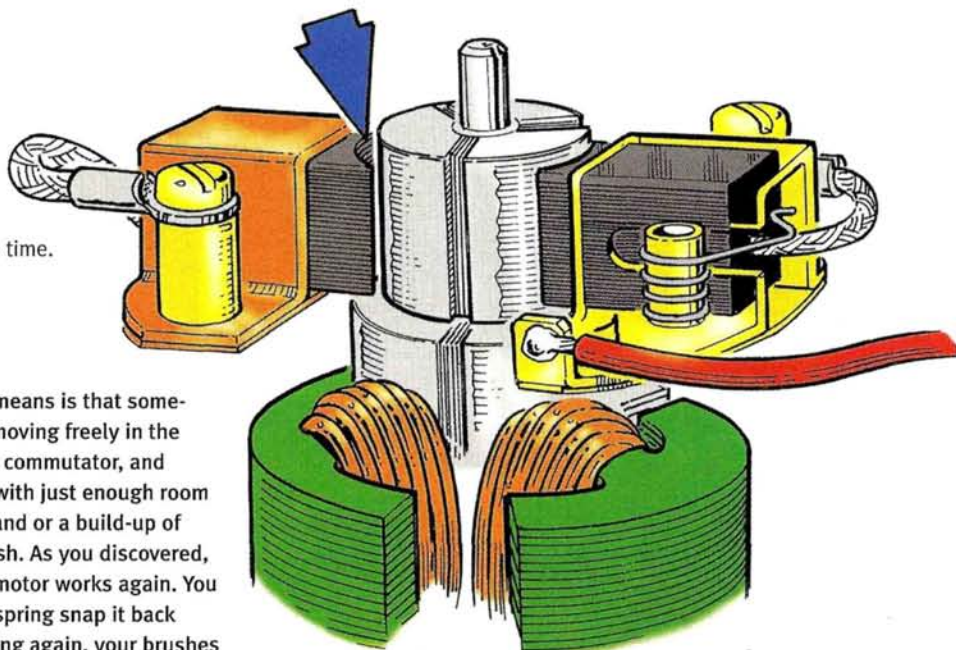
RS4 Nitro 32 Pitch Conversion Kit is available. RRP 1536

Hung-Brush Blues

I have a Trinity P2K motor in my Stampede, and it really flew until the other day when it just stopped. I gave it a push, and it took off. Now it does this all the time. Is it the motor?

MARK DELUCA
New York, NY

Your motor probably has a "hung brush." What this means is that something is preventing one or both of the brushes from moving freely in the brush hoods; this prevents them from contacting the commutator, and that stops the motor. The brushes fit into the hoods with just enough room to allow them to slide; all it takes is a tiny grain of sand or a build-up of comm-drop residue or brush particles to jam the brush. As you discovered, a little push or kick usually frees things up, and the motor works again. You can also pull the brush back in the hood and let the spring snap it back against the comm. If this doesn't get the motor running again, your brushes may simply be worn out and so short that the springs have bottomed out in the hoods and can't push the brushes in deeply enough to reach the comm. Whether you have to replace the brushes or not, you should thoroughly clean the motor and endbell hardware to prevent brush hang-ups (use an RC-specific motor spray such as DuraTrax Power Shot or Brian Kinwald's Buggy Blast Cleaning Spray). Frequent inspection and cleaning are the best ways to avoid having electric motor problems. ■



RC10-GT Steel Combo



Precision machined from solid steel, then hardened, this 85T spur and 15T pinion combo will last and last. The extra-hardened clutch bell fits ALL Associated and MIP shoes. RRP 2365

www.robinsonracing.com

Hardened Steel Idler Gear



Cut from solid steel stock, this gear is lightened and hardened for super quiet precision and extra long life. Jammin' tranny grease is included. RRP 2213 RC10-GT, RRP 7505 Ultima GP-R

Associated Titanium Stealth Top Shaft



CNC Machined from solid titanium, this super hard, super light top shaft will fit any Stealth transmission. RRP 1512.

Hardened Diff Gear



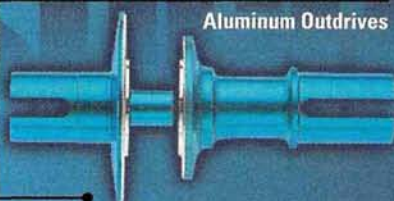
Hard anodized, precision CNC machined aluminum diff gear. RRP 1513 RC10-GT, RRP 7500 Ultima GP/EP-R

Blue Lightened Slipper Kit



The rear plate is hard anodized and the front plate is color treated. The front plate holds the pad forcing it to slip on the rear plate. When pad wears, just flip it over for a new surface. RRP 1515 Associated, RRP 7515 Kyosho Ultima

Aluminum Outdrives



40% lighter than stock ball diff outdrives. RRP 1475 TC3, RRP 1502 B3/T3

TC3 Ultra 48 Pitch Spurs

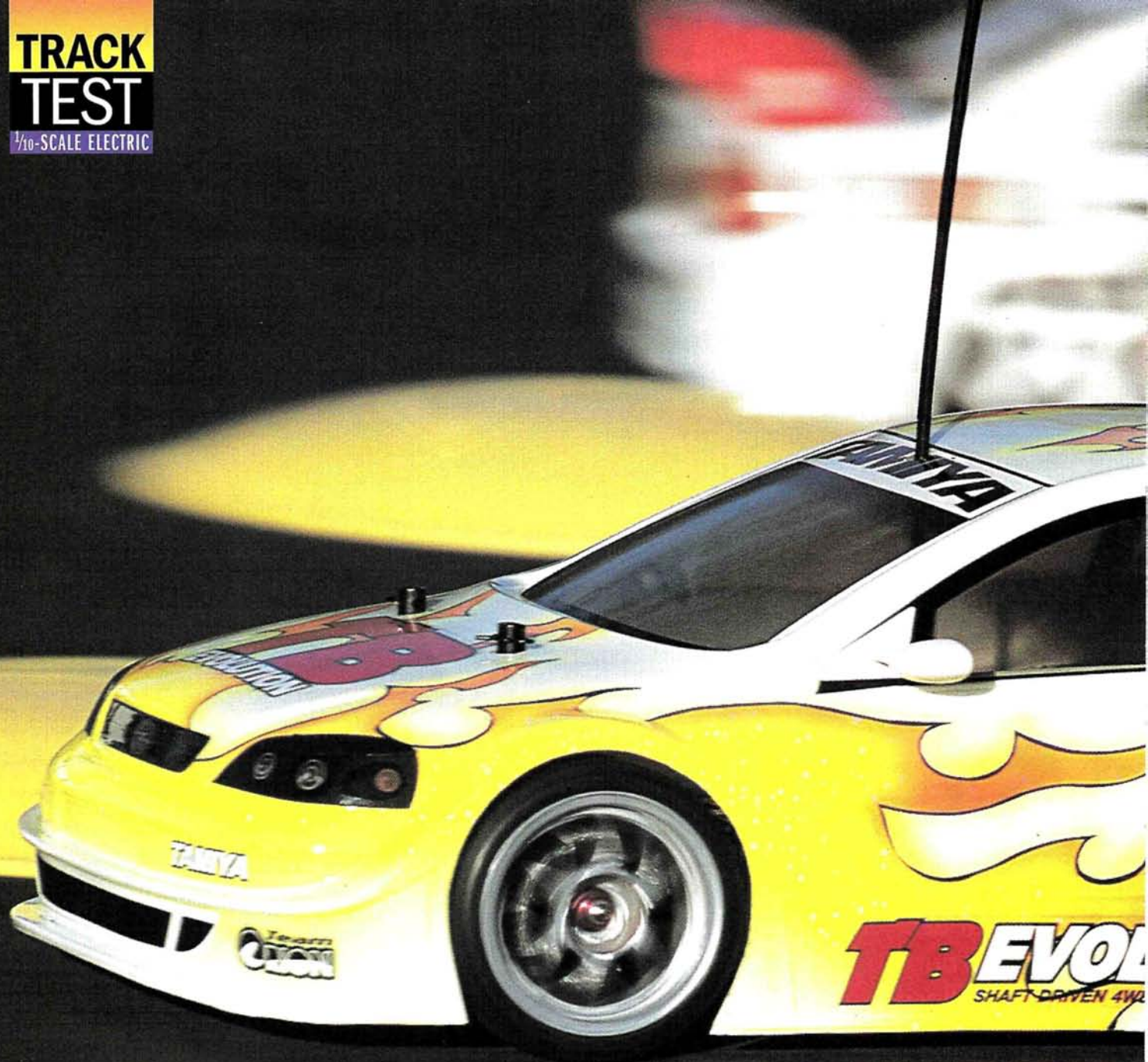


Precision machined from heat-resistant plastic, these spurs mesh flawlessly with our pinions. Available in even numbers from 70T thru 80T, RRP 1670 RRP 1680.

ROBINSON RACING PRODUCTS

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Tamiya TB Evolution

Tamiya takes its shaft chassis
from basic to ballistic by Greg Vogel



If you've been into the hobby a while, you'll remember that, with the TA series, Tamiya* pioneered touring cars and their shaft-drive technology. As belt-drive cars became popular, Tamiya responded with the TA-03 and its latest top-of-the-line competition tourer, the TA-04 Pro. Tamiya never gave up on shafts, however, and the system remains the drive train of choice for its 4WD vehicles. This is evident in the company's latest (and very competitive) super-scale nitro car, the TGR and the well-established TGX, TG-10, TL-01 and TB-01 platforms. The TB-01 is particularly interesting; it was initially offered as a rally car, but dedicated Tamiyaphiles soon discovered it had real racing potential, and Tamiya now offers a full line of race-oriented hop-ups for it.

DATA CENTER

VEHICLE TYPE 1/10-scale electric
4WD touring sedan

BEST BUYER Serious racers looking for a high-performance sedan

KIT RATINGS (poor, satisfactory, good, very good, excellent)
Instructions Excellent
Parts fit/finish Good
Durability Very good
Overall performance Very good

SPECIFICATIONS

MANUFACTURER Tamiya
MODEL TB Evolution
SCALE 1/10
STREET PRICE \$539.99

DIMENSIONS

Wheelbase 10.02 in. (254mm)
Width (F/R) 7.36/7.34 in.
(187/186mm)

WEIGHT

Total, as tested 56.37 oz. (1,598g)

CHASSIS

Type Double-deck
Material Carbon-fiber

DRIVE TRAIN

Type Shaft
Transmission Pinion/spur
Drive shafts Universals
Differentials (F/R) Torque splitter/ball
Bearing type Rubber-sealed bearings

SUSPENSION

Type (F/R) Upper/lower wishbone
Damping Oil-filled, coil-over, threaded aluminum shocks

WHEELS

Type 5-spoke (2 in.)

TIRES

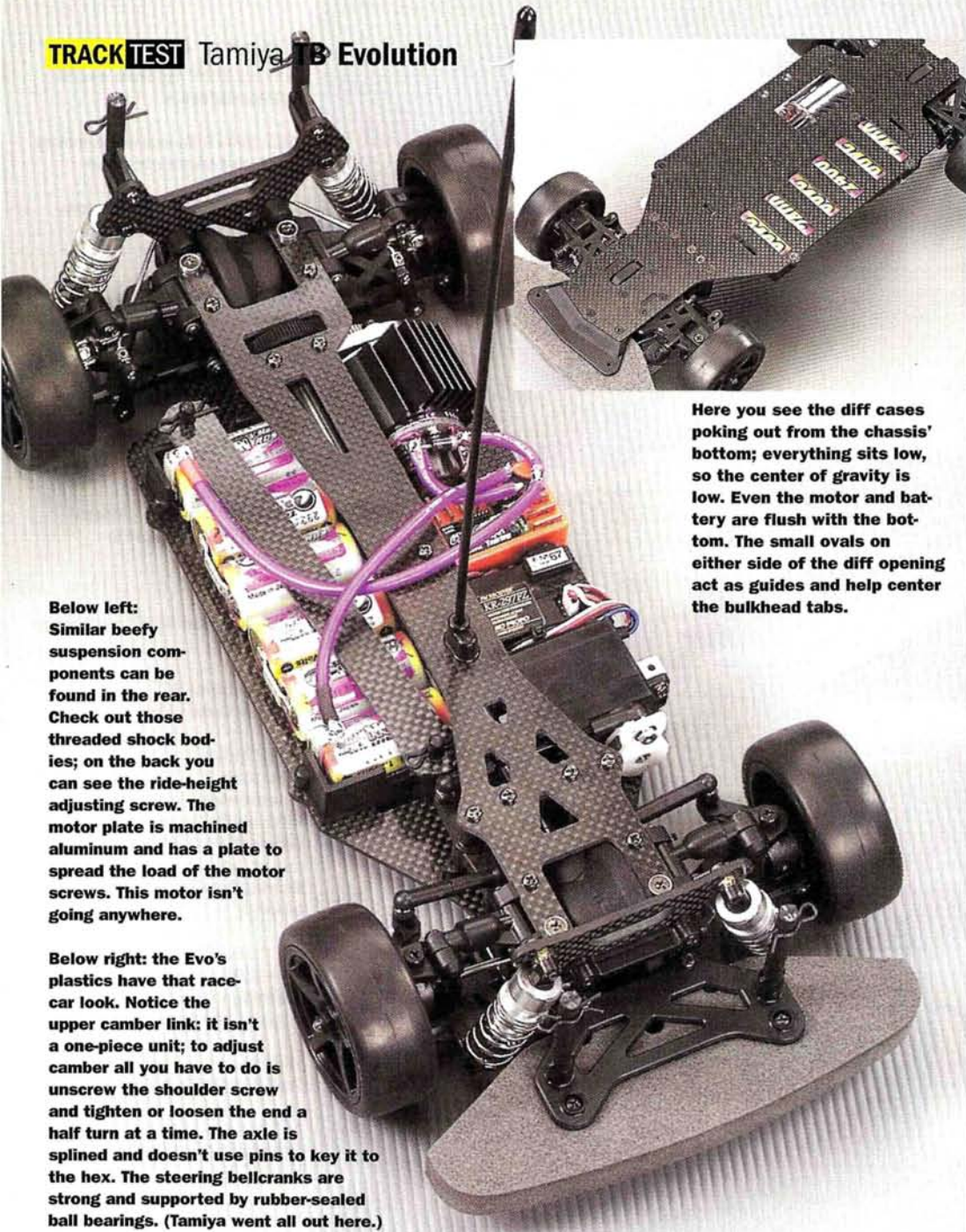
Type Rubber slicks with urethane inserts

LIKES

- Side-by-side battery configuration.
- Threaded shocks for easy preload adjustments.
- Universals are stock equipment.
- High-quality plastic and carbon-fiber parts.
- Racing potential.

DISLIKES

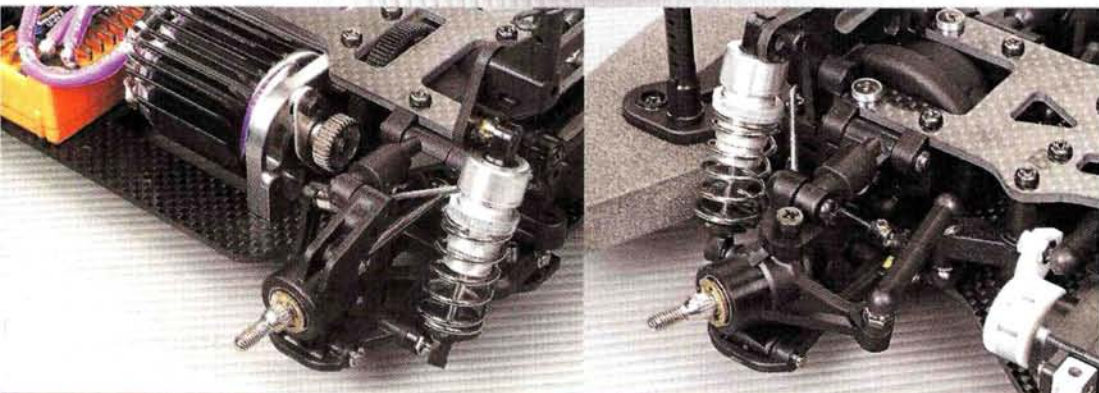
- Play developed in suspension after only a few runs.
- Only Tamiya spur gears can be used.
- High price.
- Major disassembly required for diff maintenance.



Below left: Similar beefy suspension components can be found in the rear. Check out those threaded shock bodies; on the back you can see the ride-height adjusting screw. The motor plate is machined aluminum and has a plate to spread the load of the motor screws. This motor isn't going anywhere.

Below right: the Evo's plastics have that race-car look. Notice the upper camber link: it isn't a one-piece unit; to adjust camber all you have to do is unscrew the shoulder screw and tighten or loosen the end a half turn at a time. The axle is splined and doesn't use pins to key it to the hex. The steering bellcranks are strong and supported by rubber-sealed ball bearings. (Tamiya went all out here.)

Here you see the diff cases poking out from the chassis' bottom; everything sits low, so the center of gravity is low. Even the motor and battery are flush with the bottom. The small ovals on either side of the diff opening act as guides and help center the bulkhead tabs.



YOU'LL NEED ■ 2-channel transmitter and receiver ■ Steering servo ■ Electronic speed control ■ Motor ■ 6-cell battery pack ■ Body ■ Charger ■ Tire glue

FACTORY OPTIONS ■ Tuned spring set—part no. 53163 ■ Hard joint cup (ball diff)—53217 ■ Low-friction dampers—53280 ■ 3mm lightweight diff balls—53379 ■ Carbon shaft—53402 ■ 0.4 module pinion gear (36T, 37T)—53406 ■ 0.4 module pinion gear (38T, 39T)—53407

building & setup tips

Tamiya kits always go together well, and the instructions are easy to follow. To build the kit you'll need: a 2.6mm drill bit for the down-stop screws; rubber cement for the diff outdrives; a file to bevel the battery slots. You'll also need the usual tools—a Phillips-head screwdriver and pliers, etc.

BUILDING

Step 2. The instructions suggest that you apply grease to the diff gears to quiet them; I applied 100,000WT silicone oil. Although the grease initially slows the tranny, it will become free after a few runs.

Step 26. Use the clear O-ring as the shock seal; the extra black O-rings can be used to lower the ride height or to limit travel.

Loctite* is your friend; put some on all machined screws just as a precaution; you can never be too careful.

Before you install the motor, squeeze the two flaps that go around the motor to keep the heat sink securely in place. If it's too loose, in an impact it might slide forward onto the motor and touch the positive and negative leads.

SETUP

For the indoor season, I made some changes to prepare the car for carpet racing. This involved slamming the car's chassis on the ground. To do this, I disassembled the shocks and placed three O-rings on the shaft under the piston. I reassembled the shocks with Losi* 60WT oil in the front and 50WT in the rear with the stock springs. Foam tires are the ticket for carpet, so I trimmed down some Pro-Line Jaco foams. I topped the car off with a Protoform Accord body because I didn't want to ruin my sweet Tamiya body featured on the cover.

I picked up some Associated* springs from the hobby shop. RC Madness is more than a great track; owner Chris Marcy keeps a well-stocked shop, too. I refilled the shocks with 90WT Losi oil in the front and 80WT in the rear. I slipped on Associated's heavy white springs in the front and purple in the rear.

- Body Protoform Accord
- Tires Jaco double purple fronts, purple rear
- Shocks (F/R) Losi 90WT oil, white springs, 3 O-rings inside/80WT oil, purple springs, 3 O-rings inside
- Toe -1° up front
- Camber (F/R) -1°
- No rear swaybar

It seems Tamiya wasn't satisfied with merely hopping up the TB-01 and has designed an all-new car—the TB Evolution—around its shaft-drive system. The limited-release Evo is much more than a TB-01 with some optional parts; it has some TGR in its bloodline and obviously seems competitive. But as good as a car looks, the racetrack is always the real test. So let's check it out.

KIT FEATURES

• **Chassis.** The TB Evo has a double-deck chassis with both plates cut from woven carbon-fiber. The lower chassis plate is slotted to hold all 6 cells low on the right side, and molded battery cups with a carbon-fiber hold-down strap keep the cells in place (there are also small slots for strapping tape if you want to save weight by omitting the battery hold-down). The left side of the chassis is home to the motor and all the electronics, and the area under the motor has been cut away, so the motor sits almost flush with the chassis' bottom. Even the gearboxes get the low-CG treatment; small openings allow them to poke through the chassis and, of course, the holes on the bottom plate have been countersunk.

The top deck spans the chassis' length, and it's bolted to the front and rear bulkheads, the motor mount, the steering posts and an aluminum center post. By bolting the plate to these areas, Tamiya provides a very rigid platform with almost no noticeable flexing.

A foam bumper is captured between an upper and a lower plate. This prevents the bumper from folding over in a crash and allows it to do its job.

• **Drive train.** Although the Evo is shaft-driven like its TB-01 precursor, the drive train is almost totally new. The rear end is equipped with a ball differential like the one used on the TG-10, but a lightweight plastic bevel-diff gear replaces the TG-10's cast-aluminum gear. To reduce rotating mass, the differential halves are made of light machined aluminum instead of cast aluminum. A plastic bevel pinion is mated with the diff inside the gear case, which is borrowed from the TGR. Up front, a torque splitter (also known as a one-way diff) is used in place of a conventional diff. It's built into a TB-01 diff case held in another TGR gearbox. The TGR case is unique in that its halves aren't bolted together; instead, a ring slides over the area that encloses the bevel pinion gear bearings and prevents the case from splitting. To hold the case's outdrive portions together, they are wedged between the bulkheads.

An aluminum shaft with a steel rear tip sends power to the front and rear gearboxes. The steel tip is

on the spur gear end where the pin slides through the shaft to hold the gear; the steel construction prevents the pin from stretching the hole. The spur is a 0.4 module (metric 64-pitch) and a kit-specific part; no standard gear adapter is offered, so only Tamiya spur gears and metric pinions can be used. I'm glad to say Tamiya has you covered: three 88-tooth and three 72-tooth spurs are supplied.

The drive assembly runs on rubber-sealed ball bearings, and universal axles drive the front and rear wheels. The axles aren't drilled for Tamiya's usual crosspins; instead, they are splined for metal drive hexes.

The motor plate is machined from lightweight aluminum that's anodized in a light gray and has a washer plate that the motor screws go through to hold the motor. Although the plate looks badass, it's very hard to reach the screws unless you have a ball-hex driver. Even with the ball driver, it's hard to get to the screws after the car has been assembled. Tamiya supplies a black heatsink to cool the motor, and a 35-tooth pinion is also standard equipment.

• **Suspension.** The Evo's chassis is wider than the standard TB-01's, and its arms are longer than the standard car's, too. The arms run deeper into the wheels to improve the car's stability and handling; they are very stiff and have a matte finish that looks more raceworthy than the shiny gloss of other Tamiya kits' parts. Believe it or not, I had to drill holes in the arms for down-stop screws. I don't think I've ever had to do any hand-fitting on a Tamiya car before. You'll find stout rear hubs, hub carriers and steering knuckles at the ends of the arms, but you won't find any screw-in hinge pins. Like Tamiya's previous pro-car offerings, the Evo uses E-clip hinge pins to hold the suspension pieces together.

The Evo's TGR upper camber arms may look like nonadjustable, one-piece units, but they are adjustable. The threaded rod that holds together the arm's telescoping halves is fully enclosed, making the arm appear to be one piece. The benefit is a reduced risk of an arm bending in a crash, but the downside is reduced convenience; the upper arm must be disconnected at the hub to make camber adjustments, and the minimum adjustment is one half-turn.

Carbon-fiber shock towers are mounted front and rear on the center of the bulkhead and offer several positions to relocate the shocks. Front and rear sway-bars are included. They are housed in a special plastic mount that is bolted to the shock tower.

Tamiya includes its sweet (and I do mean *sweet*) threaded shock bodies with the kit. The shocks'

KO Propo Mars transmitter and receiver

The KO Propo's* Mars radio system is packed with features and allows you to select the skill level ranging from 1 to 5. Skill level 1 allows you to adjust the basic functions while level 5 lets you adjust functions such as servo speeds, ABS duty, "dash modes" and much more.

KO Propo 2123 servo

Quick and strong; that's just what a touring car needs to be to get around a tight, high-bite track, so in went the 2123 servo. If you do pick up one of these, make sure your ESC has a servo booster lead (most racing ESCs do), as the 2123 requires a full 7.2 volts to operate properly.

Novak Cyclone TC speed control

Novak's* touring-car-specific ESC was a natural selection for the TB Evo. If you look at the pictures, you'll notice that the leads are very short. If you cut the leads that short on any other speedo, that ESC would most likely have to stay in there for good and wouldn't fit any other car. With the Cyclone, you can solder new wires onto the posts without risk of damaging the ESC.

Team Orion matched Sanyo 2400 cells

I wanted a lot of punch, so I went with Team Orion's* 2400s instead of 3000s. I ran a hot mod motor and a tall gear; I made run time with time left to spare.

Team Orion 10x2 chrome modified motor

Now that batteries have a ton of capacity, we can run hotter motors; I dropped in an Orion 10x2. Some may say that's mild, but it's fast enough for me.

Tamiya and Protoform bodies

For the article's photos, I selected a Tamiya Opel V8 Coupe body because it has some realistic, sexy body lines; but for racing, I switched to a more rounded race-type body—a Protoform* 4-door Accord.

Jaco foams

Our test track calls for foam tires. I tried a full set of Jaco* foams on my Hudy* lathe. I selected double purple compound tires for the front and purple for the rear. They are less susceptible to chunking and grip well on high-bite carpet tracks.

THE COMPETITION

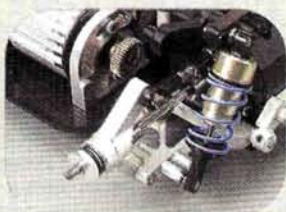
	Drive train	Chassis material	Chassis	Diffs	Shocks	Street price*	Reviewed
Associated TC3	Shaft	Molded composite	Tub	Ball	Aluminum	\$225	2/00
HPI RS4 Pro 2	2-belt	Carbon-fiber	Double-deck	Ball	Aluminum	\$219	5/99
Schumacher SST Axis 2	2-belt	S1 woven composite	Double layered	Ball	Aluminum	\$219	3/01
Tamiya TA04 Pro	2-belt	Carbon-fiber	Double-deck	Ball	Plastic	\$308	12/00
Tamiya TB-01 EVO	Shaft	Carbon-fiber	Double-deck	One-way/ball	Aluminum	\$539	3/01
Yokomo MR-4 Pro	2-belt	Molded graphite comp.	Tub	Ball	Aluminum	\$229	4/00

Cars are listed alphabetically by brand. *Approximate; price varies with dealer.

TOP OF THE LINE TB

If you already have a TB-01 and want to make it a racer similar to the Evolution, but you don't want to lay out the cash for a new car, this is for you. I've taken a stock TB-01 and hopped it up with Tamiya options just to show you which parts are available to help you to convert your machine from mild to wild. Remember that this full-option version shows you what's available; you won't need all of the parts to make your car a competitor.

1 In my opinion, the chassis set is a must-have option, and it lets you throw that bulky tub into the spare-parts pile. The set comes with the carbon-fiber upper and lower deck, an upper plate, a battery box (with a strap and some miscellaneous plastic parts) and hardware. Also on the must-have list is the aluminum motor plate that dissipates motor heat. A carbon propeller shaft and the lightweight gear set both reduce rotating mass and result in a smoother, better accelerating drive train.



2 Aluminum shocks are always a nice upgrade as are adjustable turnbuckles. The aluminum suspension arms, hubs and hex hubs are cool additions but not absolutely necessary. What is necessary is the aluminum suspension bracket behind the tranny case; it significantly reduces suspension slop.

3 Behind the steering knuckle is the axle's universal joint; universals are a good upgrade for the front and reduce backlash and slop. Bearings, too, are among the vital hop-ups; they replace the plastic and bronze bushings, so the drive train spins freely.



HOP-UP PARTS

- TB-01 carbon frame set—53408.
- Low-friction damper set—53280.
- Lightweight gears—53401.
- Carbon shaft—53407.
- Ball differential—53360.
- Front one-way unit—53200.
- Hard joint cup set—53405.
- Turnbuckle upper arm set—53392.
- Tie-rod set—53388.
- 0.4 88T spur gear—53404.
- 0.4 36T/37T pinion gear—53406.
- Ball-bearing set—53398.

ALUMINUM

- suspension mount—53414.
- servo stay—53308.
- wheel hub—49142.
- motor mount—53403.
- suspension arms (F/R)—53373/53372.
- rear upright—53380.
- gearbox mount—53366.
- kingpins—53157.
- 5mm ball connector—53284.
- racing steering set—53365.

single O-ring seals are backed up with Teflon shaft guides, and blades take care of volume compensation. Two-hole Teflon pistons are matched with medium-strength silver springs, and double-threaded collars on each shock prevent the preload settings from wandering.

• **Steering.** The steering system was nabbed from the TG-10. Aluminum posts are screwed to a small block and then to both sides of the chassis. Bearing-supported bellcranks then slide over the posts, and the steering is linked with tie rods and ball cups. Tamiya's three-spring collar servo-saver holds the wheels turned firmly through corners while enhancing safety by damping the blow your servo would feel in a crash.

Aluminum servo mounts are a nice touch, too; they keep the servo firmly planted on the chassis.

• **Body, wheels and tires.** The kit doesn't include a body; however, Tamiya does supply body mounts and mount relocation adapters that allow you to use any Tamiya body with pre-cut holes. Tamiya's gummy, type-A belted slicks with medium inserts and attractive, black 5-spoke rims are supplied. All you need to do is glue them, and they are ready to provide you with lots of traction on medium-bite surfaces.

PERFORMANCE

On the track the car ran well; the suspension was a bit soft, and the car had lots of steering. I dialed out a lot of steering but still had mounds of traction, and I noticed a lot of body roll. The Evo accelerates very quickly, but its transmission is a little noisy and not whisper-quiet like many other tourers'. I went back to the pits to take out some of the body roll.

It took a little tuning to get the Evo into shape for carpet (see "Building and Setup Tips"), since the stock suspension is a bit soft. Back on the track, the car ran much better, but it still had mounds of traction. Driving with a torque splitter on a small, tight track isn't easy, but I quickly got the hang of it. When you drive with a splitter, you must be on the power at all times. On one lap, I came into

the turn at the end of the straight too hot and hit the outside wall hard. Although there was no suspension damage, I did manage to jolt the front drive enough to flat-spot the bevel pinion. Back to the pits.

Major disassembly is necessary to get to the diffs. It took quite some time to replace the bevel pinion. Luckily for me, Tamiya supplies three of each gear with the kit in case they need to be replaced. When the car was back together, I did a tire swap. I went to double purple compound tires in the front and purple in the rear. I had too much traction before, and that was scrubbing speed. I also yanked the rear swaybar, and I went up to a 36-tooth pinion.

The car was fast and accelerated quickly out of the turns with a little slide. It handles very well on carpet, and I heard comments from other drivers that it looked good, even though I only had a few runs in on it. As for durability, the car held together even after some hard hits in the corners, the only exception being the full-throttle wall "incident" that claimed the bevel pinion.

Before testing, its suspension was tight and didn't show any signs of slop, but after a full day of racing, it exhibited some play. With an expensive car like the TB-01 Evolution, I didn't expect to see this much slop until after half a season of hard racing. I'm going to shim it up and continue to test with this capable car.

THE VERDICT

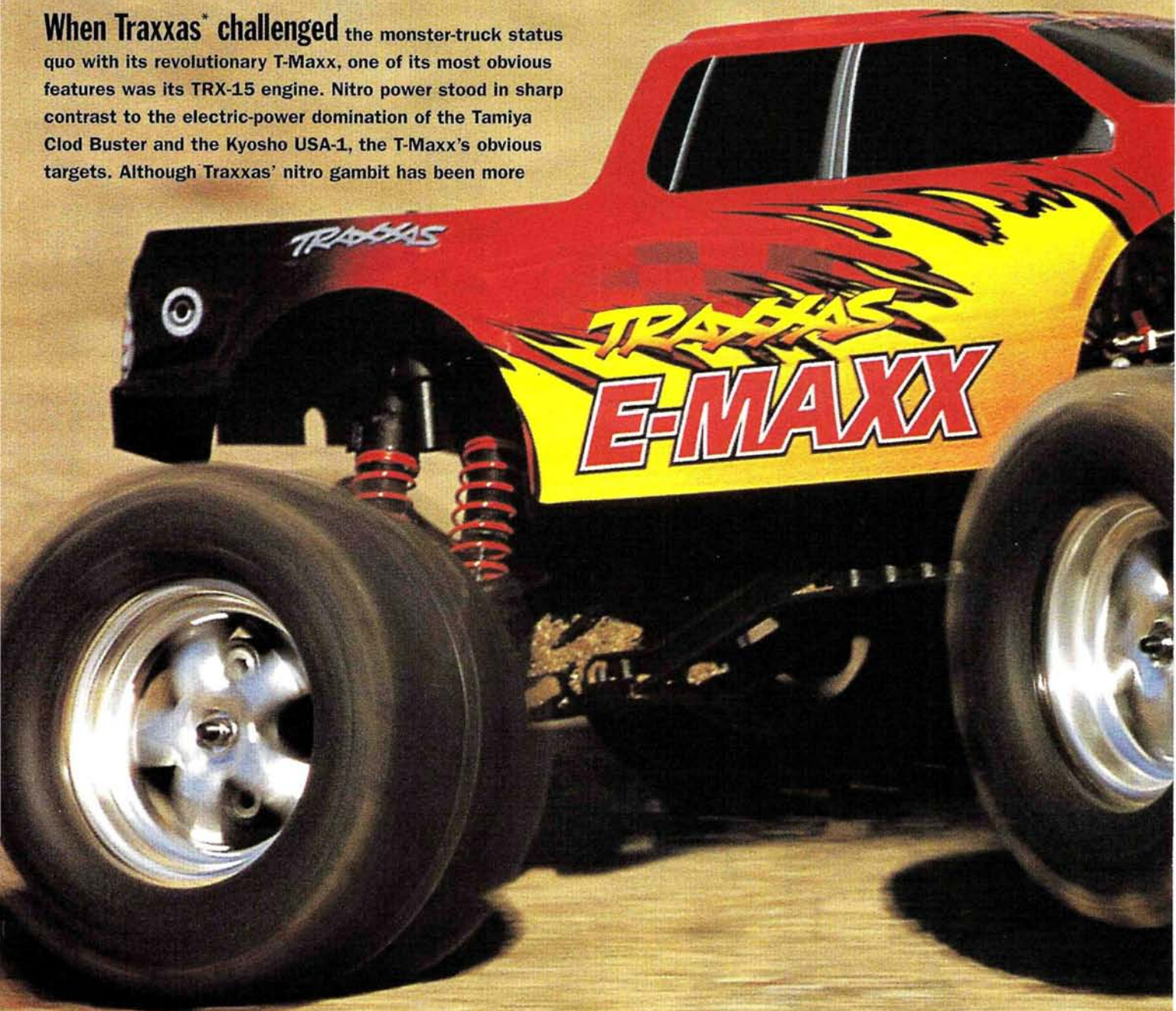
From the tip of the foam bumper to the E-clips on the rear hinge pins, Tamiya has constructed a first-class competition touring car. The high-quality materials that have been used throughout the kit show that Tamiya means business and that it wants to win races. The TB Evolution has lots of steering, traction and acceleration in stock form, and that's easier for a racer to dial out than to dial in. All around, the Evo showed a lot of potential for being an excellent racecar, and it's definitely worth checking out if you're in the market for a new ride. Look for updates on this car in future issues of *RC Car Action*.

*Addresses are listed alphabetically in "Featured Manufacturers" on page 225. ■

Traxxas E-Maxx

Plug-in power for the Maxx by Kevin Hetmanski

When Traxxas* challenged the monster-truck status quo with its revolutionary T-Maxx, one of its most obvious features was its TRX-15 engine. Nitro power stood in sharp contrast to the electric-power domination of the Tamiya Clod Buster and the Kyosho USA-1, the T-Maxx's obvious targets. Although Traxxas' nitro gambit has been more



PHOTOS BY WALTER SIDAS



than successful, many hobbyists wished Traxxas would bring T-Maxx performance to the battery boys. Wish granted: the E-Maxx is here. We gave the preproduction truck the "First Look" treatment in the December 2000 issue, but now we've got the real thing, right down to the box, decals and factory-finished body. Is the production truck as good as the prototype—or even better? And how does it stack up against the T-Maxx? All your questions are about to be answered.

DATA CENTER

VEHICLE TYPE 1/10-scale, dual-motor, electric 4WD monster truck
BEST BUYER Any RC fan. No one can resist this thing.
KIT RATINGS (poor, satisfactory, good, very good, excellent)
Instructions Good
Parts fit and finish Very good
Durability Very good
Overall performance Very good

SPECIFICATIONS

MANUFACTURER Traxxas
MODEL E-Maxx
SCALE 1/10
STREET PRICE \$379.99

DIMENSIONS (chassis only)
Length overall 15.75 in.
Wheelbase 12 in. (305mm)
Width (F/R) 14.8 in. (375mm)

WEIGHT
Gross, RTR 161.12 oz. (4,568g)

CHASSIS
Type Molded, semi-tub, slotted
Material Nylon composite

DRIVE TRAIN
Type Sealed gearbox with manual 2-speed
Primary Spur gear/dual pinions
Drive shafts Telescoping universals
Differentials Planetary gear
Bearing type Rubber-sealed, metal-shielded ball bearings

SUSPENSION (F/R)
Type Independent, double wishbone
Damping oil-filled, coil-over shocks (2 per wheel)

WHEELS
Type 5-spoke, one-piece molded

TIRES
Type Chevron treads with foam inserts

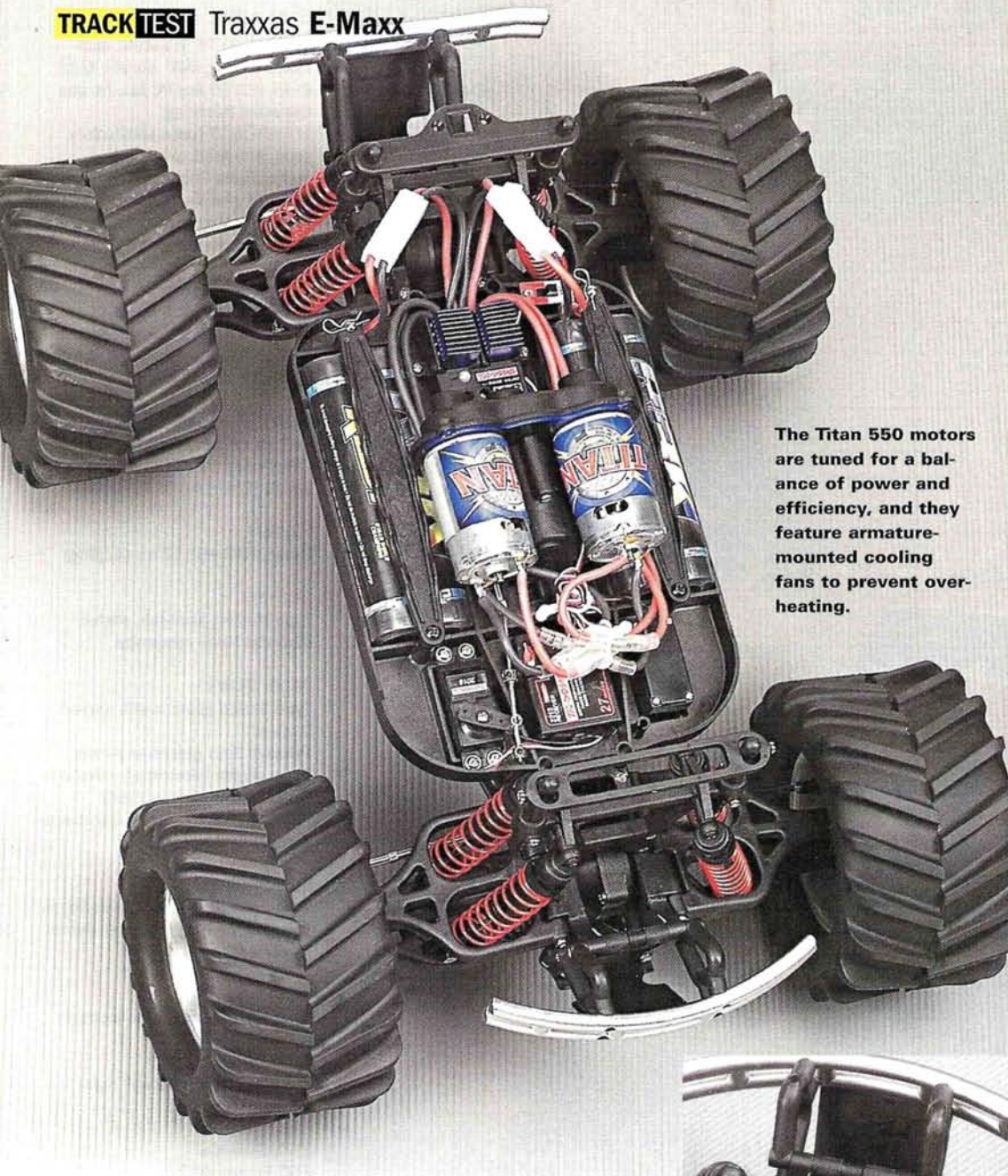
ELECTRONICS
ESC Traxxas VX12
Steering servo Traxxas 2055 high torque
Shifter servo Traxxas 2018
Transmitter/receiver Traxxas Top Qualifier
Motors Traxxas Titan 550

LIKES

- Excellent factory assembly.
- Complete shifting control.
- Best monster-truck suspension ever.

DISLIKES

- Traxxas doesn't glue the tires for you.
- The ESC really needs a brake system.



The Titan 550 motors are tuned for a balance of power and efficiency, and they feature armature-mounted cooling fans to prevent overheating.

building & setup tips

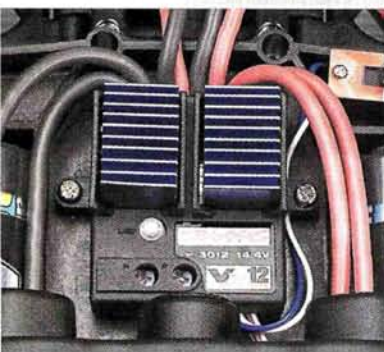
The Traxxas E-Maxx comes out of the box almost ready to go and leaves little to do beyond slipping a pair of stick packs into the truck and eight AAs into the transmitter, but to get the most from your Maxx, try these tips:

Prerun inspection. Pull the truck out of the box and give it a visual once-over to see whether all the screws are tight and everything is where it should be. Read all the instructions that come with the kit; they have very important information about the truck that you need to know before hitting the pavement. Take a look at the slipper clutch to see whether it's tight. Turn the nut on the slipper until the tension spring is fully collapsed, and then back it off $\frac{1}{16}$ turn for the proper setting.

Glue the tires. Before squirting CA, take the tires off the rims and remove the inserts. Clean the bead of the tire and the tire groove in the rim with denatured alcohol (window cleaner will do, if that's all you have). This helps the glue adhere better to the tire and rim. Make certain to reinstall the tires in the correct direction.

Keep it clean. Take the time in between runs and when you're finished with the truck to give it a quick visual inspection. Use a brush to clean off the dust and dirt to make it easier to see what's going on. Make sure all the screws are in place, see if any of the parts need to be replaced, and so on. Also, clean off the dirt that accumulates around the bottom of the shock bodies. If you don't, dirt will work its way into the seals and can score the shock shafts and shock bodies. This takes only a few minutes, and it's well worth the time.

Use identical battery packs. When purchasing batteries for the E-Maxx, try not to mix brands and capacities. For example, you wouldn't want to use a 1500mAh pack and a 2000mAh pack. It won't damage anything, but one pack will flatten out before the other, and the truck's performance will suffer. Capacity is more important than brand; if you already have a brand-X 2000mAh stick pack and can't find another brand-X pack, at least be sure the pack you buy uses 2000mAh cells. I used a pair of Reedy* 3000mAh NiMH stick packs.



Traxxas engineered a new ESC just for the E-Maxx. The VX12 can handle 14.4 volts of power, and it drives two huge 550

New molded cross-braces tie the left and right bulkheads together to prevent them from flexing. These are also used on the latest T-Maxx models.



This metal brace was originally used on the front of the T-Maxx only, but Traxxas has since added the part to the rear gearbox as well. The E-Maxx also sports metal braces front and rear.

motors. It features fully proportional forward and reverse but has no brake. Gold-plated battery connectors are a nice touch.

YOU'LL NEED ■ Two 6-cell battery packs (stick or side-by-side) ■ Charger ■ Tire glue ■ Eight AA batteries

FACTORY OPTIONS ■ E-Maxx body (clear)—part no. 3911 ■ Decal sheets: flames/racing sponsors—3913X/2514 ■ Idler gear shafts (lightweight, hard-anodized, Teflon-coated aluminum)—3995X ■ Machined motor plate—3990X ■ Aluminum battery hold-downs—3923X

KIT FEATURES

• **Chassis.** The E-Maxx forgoes the T-Maxx's aluminum chassis in favor of a more battery-friendly, plastic semi-tub. The chassis is stiffened by molded-in ribs that create compartments for the battery packs, motor, transmission and servos. Space is provided for two stick packs or 12 individual cells, and the plastic straps that secure the packs are reversible to suit either configuration. The rest of the chassis parts are lifted straight from the T-Maxx, including the ladder bars that bridge the front and rear gearboxes and the molded suspension and transmission bulkheads. New pieces include molded braces that join the left and right suspension bulkheads (which are all standard on the T-Maxx) and steel reinforcing plates beneath the front and rear skidplates (also found on the T-Maxx).

• **Drive train.** The E-Maxx is a dual-motor truck, but it uses a pair of 550-size motors instead of the typical 540-style. Traxxas worked with the motor manufacturer to dial in just the right wind for the E-Maxx, and the Titan motors have some unique features. The armatures are specially wound for 14-volt operation, and cooling vanes on the armatures create a fan effect that, according to Traxxas, will prevent the motors from warming up beyond about 20 degrees over ambient temperature.

The Titan motors are mounted side by side on the center transmission's blue-anodized aluminum motor plate, and they spin a common 66-tooth spur gear with 18-tooth pinions. The gears are 32-pitch for maximum durability, and the motor mount is fully adjustable to accommodate a wide variety of gear ratios; according to Traxxas, you can go as low as 50:1.

A slipper clutch has been built into the spur gear. Instead of using slipper pads, short Rulon pegs are inserted through the spur gear. These rub against steel rings that are keyed to the spur gear's axle. By cranking down the nut on the end of the axle, the amount of tension on the spur gear's slipper pegs is adjusted, and this determines the amount of slippage. According to Traxxas, the E-Maxx's slipper

clutch is meant to provide extra drive train protection—not traction control, and it should be set tight.

The E-Maxx's central transmission is basically a simple 3-gear unit, but it employs a very clever shift-on-the-fly, 2-speed system; see "How Does the 2-speed Work?" for the details. The transmission's bulk is above the chassis, but its bottom hangs beneath to connect with the telescoping, universal drive shafts that extend to the front and rear differentials. This is T-Maxx territory now, and the rest of the drive train is culled from the nitro-powered Maxx. That means planetary gear differentials with metal ring-and-pinion gears, telescoping, plastic universals to connect the diffs to the drive hubs and ball bearings on all the rotating parts.

• **Suspension and steering.** The E-Maxx features the same fully independent front and rear suspension as the T-Maxx. For those of you unfamiliar with the T-Maxx (where have you been?), the Maxx trucks use a double-wishbone setup damped by eight plastic-body oil shocks—two per wheel. The shocks are mounted to the lower arm, pass through the upper wishbones and are joined to identical, molded front and rear shock towers. The suspension arms are joined to plastic bulkheads by hinge pins but use large-diameter pivot balls to articulate the steering hubs. Aluminum ball-retainers with plastic pads adjust slop out of the parts. The front and rear hubs are identical; up front, steel turnbuckles are joined to a bellcrank steering system with a servo-mounted servo-saver, and the rear hubs are held in place by steel toe-in links.

• **Body, wheels and tires.** The E-Maxx body is a stylish super-duty crew cab truck, and it comes finished with a Traxxas' ProGraphix 6-color paint job. Four color combos are available; all are pretrimmed, and even the decals are precut so you can simply peel them off the backing sheet and stick them on—no scissors or razor blades required.

The E-Maxx's 5-spoke, satin-chrome wheels and chevron paddle tires with foam inserts are shared with the T-Maxx, but be warned: the tires aren't glued, so hit 'em up with some CA before you run.

Traxxas Qualifier
3-channel radio

The Qualifier features steering and throttle trim and three channels. The third channel is a small red switch on the handle that can be accessed by your thumb to shift the E-Maxx between high and low gear.

VX12 ESC

This ESC packs some muscle! It's designed to handle the 14 volts of power demanded by the Titan motors. It features fully proportional forward and reverse but has no brake. Two large, finned heat sinks help the ESC stay cool, run after run. The motors are wired in parallel, and the batteries are wired in series to get the most efficiency possible; the ESC is rated at 150 amps continuous. The metal pins inside the battery connectors have been gold-plated for less resistance.

Traxxas 2055
steering servo

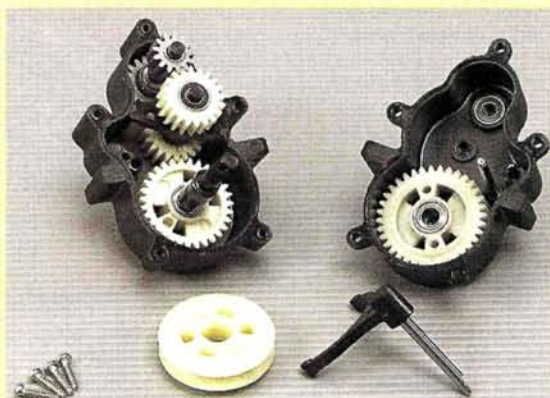
This servo has a claimed output of 80 oz.-in. and a speed of 0.22 second at 4.8 volts. That is plenty of muscle to turn the big chevron treads it's attached to. The servo gears are protected by a large servo-saver.

Traxxas 2018
shifter servo

This is a standard Traxxas servo with an output of 42 oz.-in. and a speed of 0.22 second at 4.8 volts. Its only job is to shift the truck from first to second gear, and it's more than capable.

How does the 2-speed work?

The E-Maxx's driver-shifted transmission is its most unique feature. The system is surprisingly simple: the E-Maxx tranny is two 3-gear transmissions placed side-by-side. The top shaft has two gears on it; the idler shaft has two gears on it, and there are two bottom gears on the same shaft (but no diff—they're out in the front and rear gearboxes). The 2-speed's key components are the top shaft gears, which have different tooth counts to create the two transmission ratios; the selector disc, which engages first or second gear by selecting one of the bottom gears; the hex-shaped axle, which the selector disc is keyed to, and the shift fork, which moves the selector disc to the appropriate gear. Both sets of gears turn as long as the truck rolls, but only one set drives the truck. The selector disc is grooved to accept the shifter fork. The groove allows the disc to spin while the fork pushes and pulls it between the two bottom gears. Drive dogs on the selector disc are keyed to fit into the bottom gears. In first gear, the selector disc is pushed against the right bottom gear. To shift into second, the servo pulls the shifter fork, and this moves the selector disc to the left bottom gear and disengages the right gear. Only when the selector disc engages a bottom gear does that gear actually turn the bottom shaft. That's because the selector disc is keyed to the axle's hex-shaped center portion, while the gears freewheel on the axle's round ends. When the selector disc engages the spinning gear, the disc spins with it, and this spins the axles the disc is on, which in turn drives the truck.



Here's the inside of the tranny; note the different tooth counts on the top gears and the hex-shaped bottom shaft. The shaft's ends are round, so the disengaged gear can freewheel.

PERFORMANCE

I took the truck to a nearby baseball diamond so I could get the feel of it in a large, open area. I pegged the throttle, and the truck took off on its rear wheels. I let off enough to get the front wheels back on the ground, then hit the shift button. I heard the gearbox hit second gear, and the truck's speed increased dramatically. Unlike the prototype, the production truck shifts while on full power. Slowing down the E-Maxx is a little hairy until you get used to it. There is no brake on the ESC; it just goes straight into reverse if you apply up-trigger. In high gear, you can simply let off the throttle, downshift to first gear, and the truck will slow down. If you have to slow down more quickly, a quick blip of reverse throttle will stop the E-Maxx in a hurry. You can also roll the E-Maxx onto its roof if you corner too tightly at speed, but the truck gives you plenty of time to react. First,

the suspension loads to the outside of the turn; then the inside front wheel lifts; then—if you haven't backed off or widened your line yet—the truck will slowly start to go over. You can even ride it out on two wheels, if you're good!

I was having fun in the great wide open, but I wanted to try a more challenging terrain. A set of concrete steps looked like a good candidate for a test of the E-Maxx's suspension. I bombed down the steps as fast as I could without catching air, and the E-Maxx just soaked them up as though they weren't even there. It was actually kind of boring. I rolled back to the top for a full-throttle run; this time, I wanted to clear all the steps. The E-Maxx easily made the leap (total vertical drop: about 5 feet) and touched down without even breathing heavily.

Next, a rock bed caught my eye, and I thought for sure the loose



T-MAXX VERSUS E-MAXX

If you're a nitro guy you already have a T-Maxx. If you're strictly a battery guy, it's an E-Maxx for you. But, if you just want the Maxx that's the most fun, which one do you choose? We ran both big machines to see whether one really was the top dog or whether they're simply two different flavors without a "best." Judge for yourself.

RUN TIME

We ran the T-Maxx on a tank of Traxxas 20-percent nitro fuel until it ran dry and honked on the E-Maxx with a pair of 2400mAh Ni-Cd stick packs until it slowed down enough to not be fun. Not surprisingly, the T-Maxx ran the longest. But how do you really measure run time? Remember, the T-Maxx burns fuel—once it's gone, it's gone, and you'll have to buy more. Batteries don't run as long per charge, but their lifetime is much longer. If you get 7 minutes of run time per charge, and you recharge your packs 500 times before they wear out, that's 3,500 minutes of run time. Now, let's say you're getting 12 minutes per tank on a T-Maxx. The truck's fuel capacity is 125cc, which means you'll use a gallon (3,785.4cc) of fuel after 30.3 tanks, or 363.6 minutes. We know you're most interested in the amount of run time from start to finish (a dry tank or dumped batteries), but it's fun to look at the numbers.
T-Maxx—17 minutes
E-Maxx—10 minutes
Advantage: T-Maxx



Depending on the surface you run the trucks on, the extra weight can even be a plus, since more weight equals more traction. Despite the numbers, we're calling this one a tie. The T-Maxx doesn't have an advantage because it's lighter, and the E-Maxx doesn't have an advantage because it's heavier.
T-Maxx—8.80 lb.
E-Maxx—10.07 lb.
Advantage: tie

WEIGHT

With two big 550 motors and a pair of battery packs, the E-Maxx is significantly heavier than a fueled-up T-Maxx, but the E-Maxx has incredible low-end torque that enables it to carry the extra poundage as though it were nothing—so there.

TUG O' WAR

The E-Maxx was the winner, hands down. Though powerful, the T-Maxx just couldn't spool up fast enough to match the instant torque of the E-Maxx's dual motors and dirt-churning first gear.
Advantage: E-Maxx

COST

There's more to the total purchase price of the E-Maxx and T-Maxx than the trucks themselves; here's what you'll spend (give or take) to run each truck.

T-MAXX

RTR truck—\$390
6-cell stick pack—\$15
Battery charger—\$40
CA glue—\$3
One gallon of fuel—\$20
Extra glow plugs (2)—\$10
Total—\$478

Advantage: tie (C'mon; it's only five bucks.)

E-MAXX

RTR truck—\$380
Two 6-cell stick packs—\$50
Battery charger—\$40
CA glue—\$3
Total—\$473

pile of jagged, softball-size rocks would be impossible to scale. The E-Maxx was able to pick its way through the boulders with relative ease, though, thanks to its supple suspension and, when all else failed, its brute power.

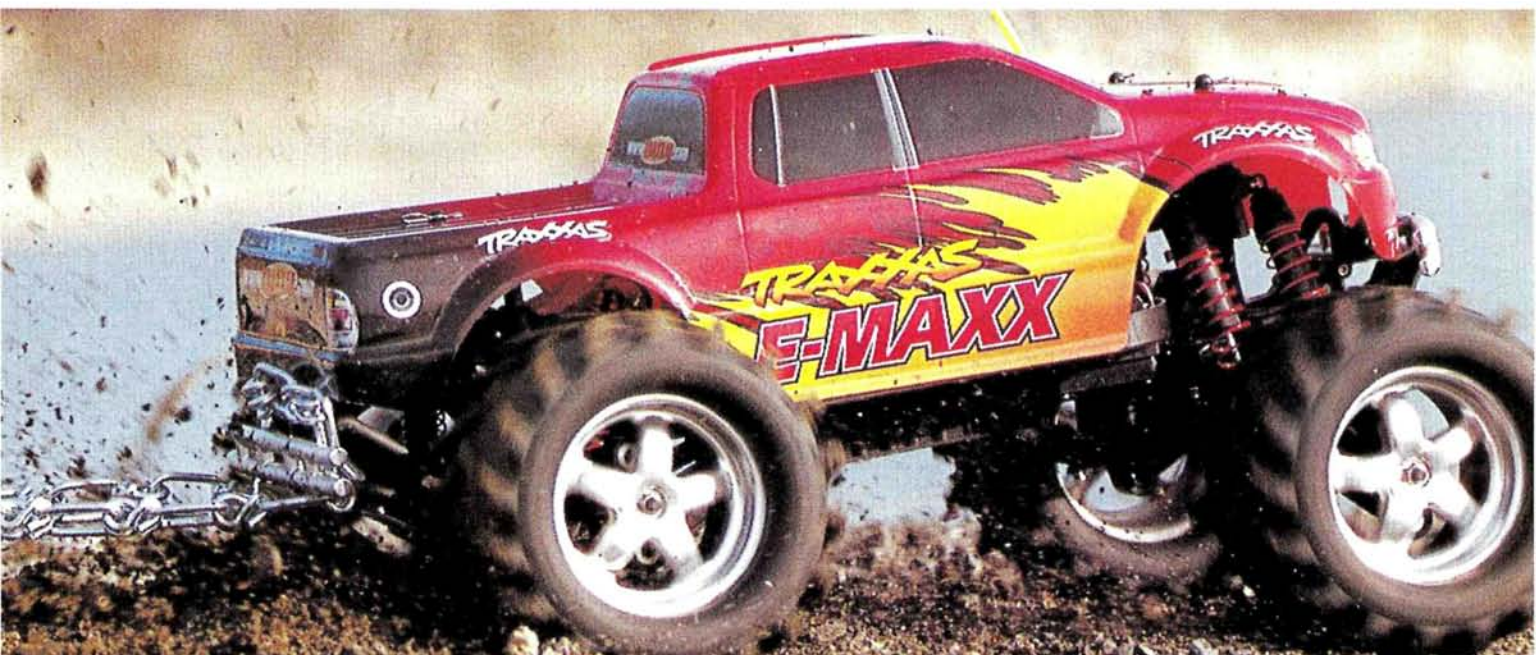
After about 8 minutes of bashing around, the truck was due for a pack change. Another pair of stick packs went in, and I went after a steep, grassy embankment. The E-Maxx clawed up the hill in first gear—no problem—and climbed the hill just as easily in reverse. Low sidewalks were also easily climbed. To be honest, I'd say the E-Maxx can climb over anything that isn't taller than its wheels.

THE VERDICT

It's ironic that many hobbyists first compare the E-Maxx to the T-Maxx, rather than to other dual-motor, electric monster trucks

(heck—that's what we did. See the E-Maxx versus T-Maxx exposé.) Sure, it's hard not to make comparisons between the two very similar trucks, but you have to admit, there really is no comparison between the E-Maxx and the existing two-motor trucks, just as there is no comparison between the T-Maxx and the 1/8-scale buggy-type nitro monster trucks. Traxxas does it so completely differently that the Maxx trucks really are unique entities that only fit into the traditional "monster truck" category because they have flat-bed bodies and chevron tires. The new definition of high-performance monster trucking can be summed up as "Traxxas Maxx." You decide which type of power you like; either way, you'll be driving what is arguably the ultimate production RC monster truck.

*Addresses are listed alphabetically in "Featured Manufacturers" on page 225. ■



CLIMBING ABILITY

No matter what kind of surface we blasted the Maxxes up and over, the E-Maxx had the edge, thanks to its goths of torque, but when the going got vertical, the high-mounted motors made it all too easy to flip the truck over backward. The T-Maxx was no slouch, but its TRX-15 engine needed a lot of revs to get the job done. With a good head of steam, the T-Maxx will launch up and over anything, but for us, climbing means low-speed clawing, and the E-Maxx does it better.

Advantage: E-Maxx

HANDLING

Both trucks feature the same suspension, so we figured that they would both have the same handling characteristics. We were right; both trucks lifted the inside front wheel when cornering, soaked up bumps, and skyed jumps with ease, but they rolled over if you pushed too hard in the turns.

Advantage: tie

BRAKING

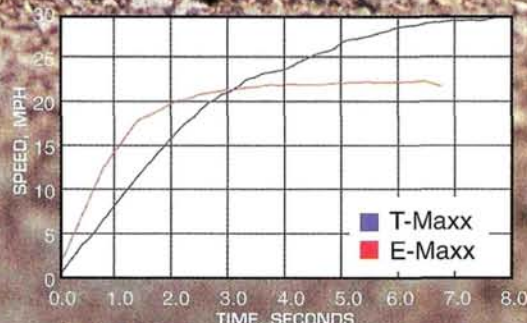
The T-Maxx has a disc brake that lets you apply as much or as little brake as you need, while the E-Maxx has no brakes. To slow it down, you downshift into first. If you're already in first, you'll have to

top reverse. It works, but it's a little touchy and not as controllable as the T-Maxx's mechanical brake or a good, proportional electronic brake. If Traxxas doesn't decide to offer an ESC with a brake, you can bet Novak*, LRP*, or someone else will!

Advantage: T-Maxx

TOP SPEED/ACCELERATION

The E-Maxx's bottom-end grunt allows it to pull the T-Maxx and quickly reach its top speed of 22.29mph, but the nitro truck catches the battery carrier with a top speed of 29.36mph. If you have the room to spool up the T-Maxx in a drag race, you'll win every time, but on a short course, the E-Maxx can take the T-Maxx. But we'll give the "advantage" to the T-Maxx because we know top speed is what you really care about! By the way, most T-Maxxes will actually run a little stronger and faster than the one we radar-tested here; ours had a bunch of runs on it and was probably due for a piston and sleeve. T-Maxx—29.36mph E-Maxx—22.29mph Advantage: T-Maxx



WHO WINS?

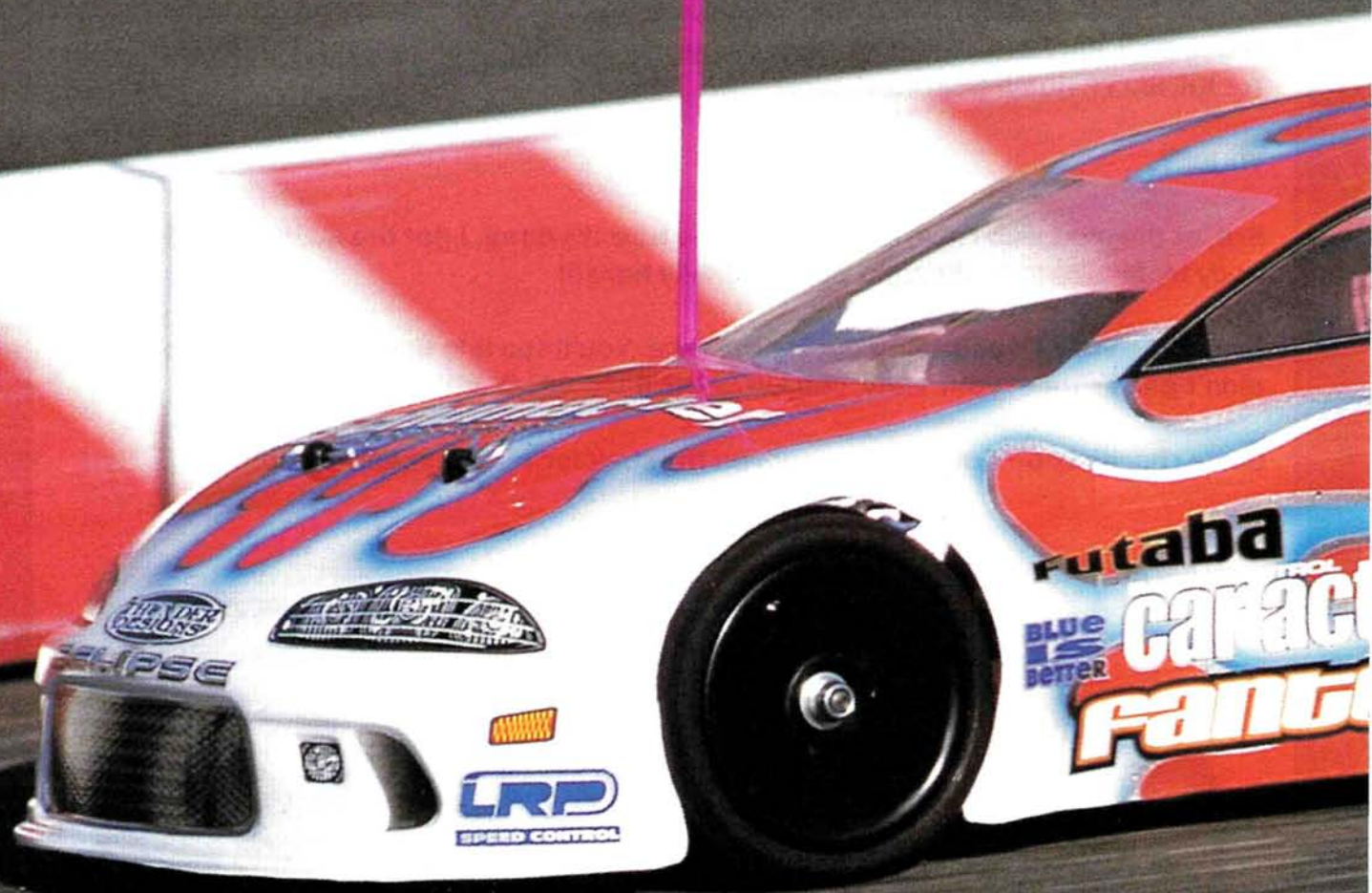
So—is one of these trucks "funner" than the other? Sort of. After running a few packs through the E-Maxx, we were looking forward to running the T-Maxx for the noise and "real engine" factor. But after a few tanks, we really appreciated the plug-and-play convenience of the E-Maxx. But the T-Maxx is faster. Then again, the E-Maxx does wheelies. Of course, the T-Maxx does have that blue-anodized chassis, but the E-Maxx ... aw, let's face it: if you want to have all the fun, you're going to have to get a T-Maxx AND an E-Maxx.

Distance traveled in seconds	0-1	0-2	0-3	0-4	0-6	0-6.5	Top speed (mph)
T-Maxx	6.21	24.18	51.90	85.19	162.35	183.31	29.36
E-Maxx	11.95	37.98	68.36	100.13	164.82	181.12	22.29

**TRACK
TEST**
1/10-SCALE ELECTRIC

Schumacher SST Axis 2

Testing the 7-time national champ by Derek Buono





Schumacher* has been in the touring car market since the beginning with its long-lived SST series. With talented drivers such as Chris Tosolini and, most recently, Paul Lemieux behind the wheel, the cars have won national titles. Now Schumacher, with its fourth-generation sedan, takes to the track with the SST Axis 2. This car builds on the winning design of the Axis but has a dramatically different chassis configuration, and the chassis is laminated. Aside from that, the Axis 2 retains the Axis' suspension, and with its new chassis, it should dominate the asphalt. Check out what's new.

DATA CENTER

VEHICLE TYPE 1/10-scale electric

4WD touring sedan

BEST BUYER Serious racers looking for a high-performance sedan

KIT RATINGS (poor, satisfactory, good, very good, excellent)

Instructions Very good

Parts fit/finish Good

Durability Very good

Overall performance Very good

SPECIFICATIONS

MANUFACTURER Schumacher

MODEL SST Axis 2

DISTRIBUTED BY Schumacher USA

SCALE 1/10

EST. STREET PRICE \$219.99

DIMENSIONS

Wheelbase 10.24 in. (256mm)

Width 7.52 in. (188mm)

WEIGHT

Total, as tested 54.4 oz. (1,542g)

CHASSIS

Type Double layered

Material S1 composite

DRIVE TRAIN

Type Dual-belt 4WD

Transmission Dual-belt

Drive shafts (F/R) Plastic CV joints

Differentials Ball

Bearing type Metal-shielded

SUSPENSION

Type (F/R) Upper/lower wishbone

Damping Oil-filled, coil-over aluminum shocks

WHEELS

Type 2-in. 12-spoke

TIRES

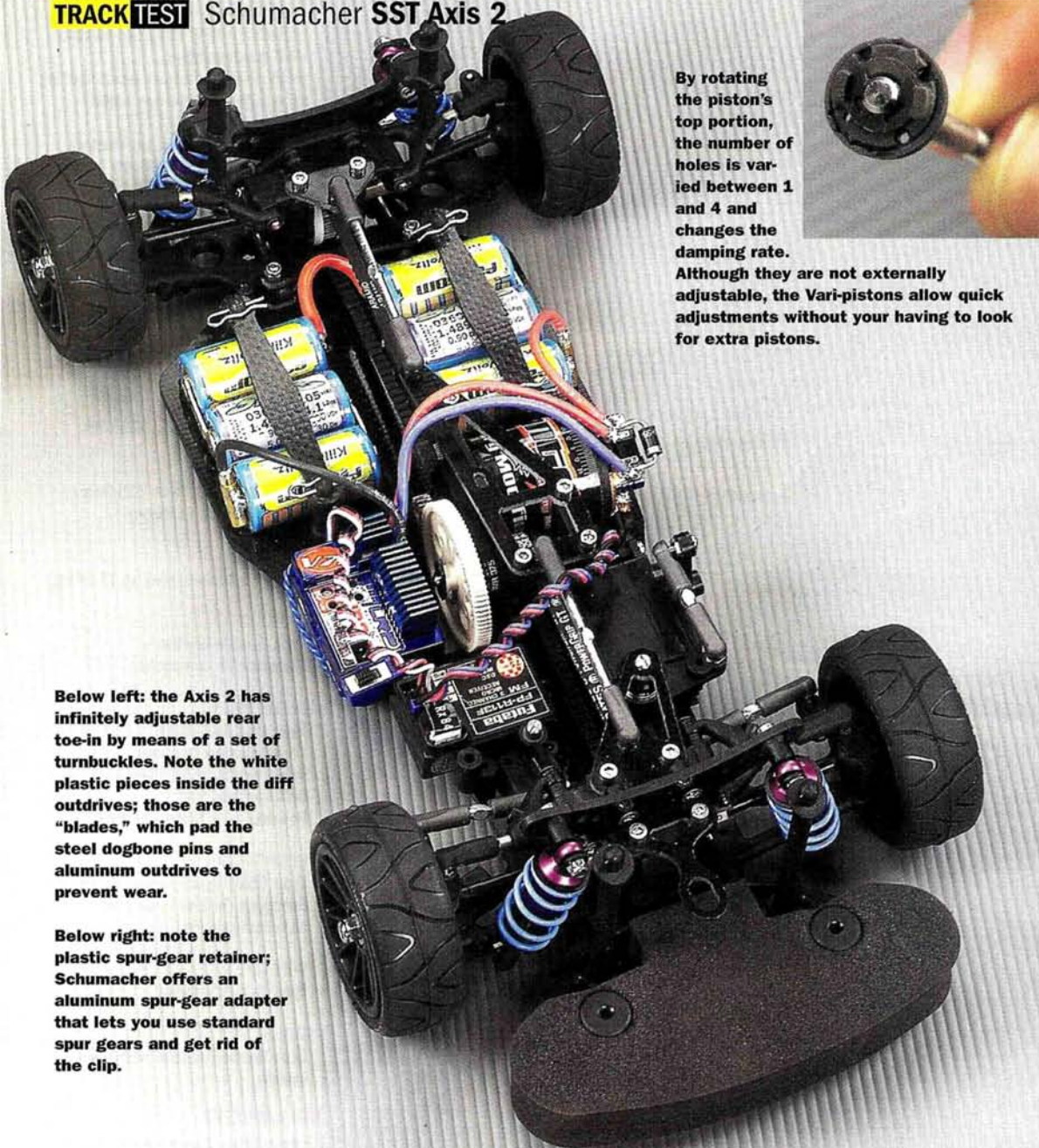
Type Rubber treaded with foam inserts

LIKES

- Innovative chassis design delivers killer asphalt handling.
- Very free-running drive train.
- Battery hold-down straps eliminate need for strapping tape.

DISLIKES

- Chassis requires a lot of preassembly prep.
- Plastic motor mount does not dissipate heat.
- Front bumper doubles as hinge-pin mount and could lead to front-end trouble after a crash.



Below left: the Axis 2 has infinitely adjustable rear toe-in by means of a set of turnbuckles. Note the white plastic pieces inside the diff outrdrives; those are the "blades," which pad the steel dogbone pins and aluminum outrdrives to prevent wear.

Below right: note the plastic spur-gear retainer; Schumacher offers an aluminum spur-gear adapter that lets you use standard spur gears and get rid of the clip.

By rotating the piston's top portion, the number of holes is varied between 1 and 4 and changes the damping rate. Although they are not externally adjustable, the Vari-pistons allow quick adjustments without your having to look for extra pistons.



building & setup tips

The SST series cars are among the easiest kits to build. The instructions could include some text to coach you past the tough sections, but overall, they did a great job. I was very impressed with the tuning page, since it generally explained the effect that changes in setup can have on the overall handling of the car. The Axis 2 went together very smoothly. Although I had a tough time pointing out the difficult steps, here are a few suggestions when you are building the kit:

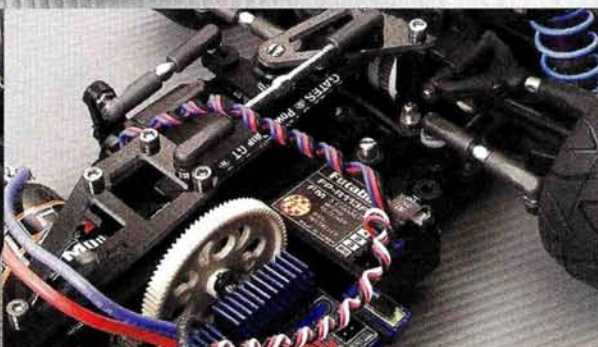
BUILDING

Chassis prep. The longest procedure when building the kit is filing the sharp edges off all the S1 composite. Be sure to pay special attention to the battery slots. If they are left as is, they could cut the shrink-wrap off the cells. For extra safety, apply CA to the edges to seal the layers together and prevent them from splitting.

Shocks. Previous kits had volume-compensating foam that was a flat strip that had to be wrapped around the bobbin. The new kit includes pre-cut sleeves that make assembly easier. To reduce the amount of air in the shock fluid after assembly, it's important to soak the foam sleeves in the same fluid as you plan to fill them with (before assembly).

Transponder mount. This handy feature should be on every racecar. The front foam bumper protects both the chassis and the body from damage, but it gets in the way of the transponder when positioned to sit low. Carefully remove some of the bumper so the transponder can be slid underneath and the chassis can be placed as low as possible.

Use an E-clip. I just don't trust a plastic clip to hold the spur gear on the main shaft. I have lost a few when testing other Schumacher cars. Replace the plastic clip with a more secure E-clip, and race worry-free.

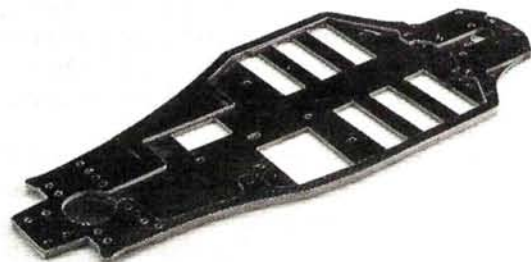


YOU'LL NEED ■ 2-channel transmitter and receiver ■ Steering servo ■ Electronic speed control ■ Motor ■ 190mm body ■ 6-cell saddle pack ■ Charger ■ Pinion gear

FACTORY OPTIONS ■ Front one-way differential—part no. U2294Y ■ Threaded shock body and collar set—U2297C ■ Alloy transmission bulkhead (front lower)—U1745Z ■ Alloy rear diff housing (lower)—U2237F ■ Alloy transmission housing (top)—U2164U ■ Alloy motor mount—U2236E ■ Alloy gear adapter—U2252Y ■ Steel universals (pair)—U21151D ■ 15T alloy rear pulley—U2019W V tungsten-carbide thrust bearing—U1954V ■ Alloy pivot blocks—U2365G ■ Ball-bearing steering set—U1248V ■ Competition roll-bar set—U2245P ■ Speedflex belt (F/R)—U2241K/U2240J ■ Caster clip set—U2251X ■ One-piece shock-piston set—U2143U

KIT FEATURES

• **Chassis.** This is where the Axis 2 separates itself not only from the previous version but also from nearly every other 1/10 touring sedan on the market. The main chassis is made of the same S1 composite that Schumacher used on the first Axis, but instead of a single plate of the stuff for the lower chassis, the Axis 2 features a laminated main chassis. A second piece of S1, cut to follow the chassis' perimeter, is



Here's a good look at the "Probonded" chassis. An additional layer of chassis material has been bonded to the lower deck. This creates the necessary stiffness and virtually eliminates chassis tweak changes, according to Schumacher.

"Probonded" to the main plate with a special temperature-resistant glue. There is no upper deck at all; a pair of turnbuckles act as braces. According to Schumacher, this new concept eliminates the inconsistent tweak (i.e., chassis twist) associated with conventional double-deck and molded composite chassis. According to Schumacher, conventional chassis are prone to tweak changes owing to crashes and the

effects of battery and motor heat. Now that the upper deck has been replaced by two titanium turnbuckles, the chassis can flex and return to shape instead of staying "tweaked" when the upper deck moves on its mounting screws.

The double-thickness chassis provides another benefit: with the suspension bulkheads mounted on its chassis' top layer, the Axis 2's roll center is raised. Schumacher's team drivers say the car handles better with this setup.

The chassis is slotted for saddle packs and uses body-clip-secured S1 straps to hold the cells in place; I won't miss having strapping tape in my pit box.

• **Suspension and steering.** The Axis 2's suspension is exactly the same as its predecessor's: upper and lower wishbone-type arms. The upper wishbones are preassembled and include a turnbuckle for camber adjustments. The caster is set by moving the upper arms fore and aft on their inboard hinge pins. The lower chassis' top layer seemed to reduce the suspension arms' down-travel slightly (compared with the previous car's), but the remaining travel is more than adequate for most tracks. If you want additional down-travel, you'll have to remove material from the chassis.

The lower rear wishbones are positioned by four independent blocks that support the rear hinge pins. The stock setup puts the anti-squat to 0-degree, and this can be adjusted by shimming the front pair of suspension blocks. Schumacher suggests adding anti-squat on slippery tracks to improve rear traction. Rear toe-in is infinitely adjustable with a pair of turnbuckles attached to the rear carriers, which are identical to the front hub hubs. As with previous designs, the steering bellcrank mounts capture the front hinge pin's rear half, and the front bumper secures the other end. This strikes me as a weak point in the design because a hard crash that damages the bumper could potentially disable the front suspension; we'll see how it holds up.

A full set of purple aluminum shocks sit on all four corners and are the same bottom-loading shocks with volume-compensating foam as are included on all Schumacher kits. A positive note is that the foam is now cut into rings instead of strips. This makes the shock assembly much easier, as the foam doesn't interfere with it by distorting the cartridge. The foam reduces the amount of air in the shocks by allowing you to fill the shocks with more oil, and as the shock shaft's volume enters the shock body, the foam is compressed to allow full compression of the shock without it hydra-locking. Schumacher's Vari-pistons are used in each shock.

Futaba* 3PJS and FP-R113F receiver

The 3PJS is very comfortable and has tons of features such as servo speed and endpoint adjustment, digital trims and 10-model memory; it can also switch between PCM and FM modulation.

Airtronics 94358 steering servo

The 94358 is one of Airtronics' top-of-the-line servos. With its aluminum gears and 200 oz.-in. of torque, this servo will keep the front wheels of any vehicle pointed in the right direction.

LRP V7.1 ESC

The 7.1 from LRP* offers a variety of features built into a shiny blue case: no motor limit and the ability to handle a monstrous 690 amps of current; push-touch setup; active current limiter; adjustable brakes.

SMC Killer Volts 3000 cells

I went with a matched set of Panasonic 3000s from SMC for the Axis 2. Phantom decided to concentrate on motor building and has loaned its Killer Volts brand to SMC.

Fantom 8x2 mod motor

Sub-10-turn motors are all over the winners' charts for national events, but for real-world racing on most tracks, this 8-turn is overkill. Most pro's use this low wind to compensate for the lack of punch 3000s deliver compared with Ni-Cds.

Orion preprinted HPI Mitsubishi Eclipse body

If you are looking for an extraordinary paint job on a quality body, you can order a preprinted HPI* body from Thunder Designs. Orion* offers preprinted versions of all of the current HPI bodies.

Jaco mounted foam tires

Our local track allows foams on touring cars, and this makes for some awesome traction. If you pick the right rubber. At the track, I used double-purples up front and purples in the rear.

Paul Wynn's Pro Carpet Setup

We all love to copy a pro setup. Here's how Schumacher team driver Paul Wynn dials in his Axis 2 for carpet.



	FRONT	REAR
Toe-in	0°	1.5°
Ride Height	5mm	5mm
Camber	-1.5°	-1.5°
Camber-rod location (hub)	1	2
Camber-rod location (bulkhead)	1	1
Caster	10°	—
Anti-squat	—	0°

SHOCKS

	100WT	80WT
fluid	100WT	80WT
piston	2-hole	2-hole
spring	Red	Red
limiters	None	None
mounting location(upper/lower)	2/1	4/1

THE COMPETITION

	Drive train	Chassis material	Chassis	Axles (F/R)	Shocks	Weight*	Street price**	Reviewed
Associated TC3 Team	Shaft	Molded composite	Semi-tub	MIP CVD	Aluminum	53.75 oz.	\$225	2/00
HPI RS4 Pro 2	2-belt	Woven graphite	Double deck	MIP CVD	Aluminum	50 oz.	\$219	5/99
Schumacher SST Axis 2	2-belt	S1 composite	Single deck	Steel/plastic universal	Aluminum	54.4 oz.	\$219	03/01
Tamiya TAO4 Pro	2-belt	Fiberglass	Double deck	Dogbones	Plastic	57.50 oz.	\$308	12/00
Yokomo MR-4 Pro	2-belt	Molded graphite	Semi-tub	Steel universal	Aluminum	53.75 oz.	\$229	4/00

Note: this is just a sampling; the category is too large to list all competitive vehicles.

*Weight as tested, ready to run. **Price varies with dealer.

The two-piece design allows the piston's damping rate to be adjusted without your having to carry a full piston set in your toolbox. The pistons are easy to adjust, but a fixed set would make more sense in a race vehicle where you want settings to be more accurate. Schumacher does offer an optional set of pistons. The 50WT oil included in the kit seemed a tad too light, but it should be a decent starting weight to work from.

Steering is provided by a dual bellcranks with an incorporated servo-saver. The servo-saver's tension is adjusted simply by tightening the top nut and increasing the pressure on the spring. Steel turnbuckles connect the bellcrank to the front steering blocks.

• **Drive train.** The open, 2-belt system rides on a full set of shielded bearings. The motor is centrally located on the chassis ahead of the batteries. A plastic motor mount holds the motor and provides the mounting for the upper brace. The kit doesn't include a pinion gear. The included 86-tooth spur gear transfers the motor's power to the fixed layshaft so that the car is locked in full-time 4WD. The spur is held on by a plastic clip. In other Schumacher cars I have driven, the clip was prone to popping off and causing the spur gear to fall off. You can avoid that by replacing the clip with a more secure E-clip during assembly. Two plastic pulleys are mounted on the layshaft and connect the front and rear diffs to the center shaft. The entire drive train is angled slightly so that the front and rear differentials can be right in the middle of the chassis. This keeps the rotating mass in the chassis' center. If you take a close look at the overhead shot of the car, you will see that the turnbuckles are angled inward at the top; this is the path the belts follow. The front and rear belt tension can be adjusted independently by threading the chassis' turnbuckle braces in or out.

The Axis 2's front and rear ball differentials are factory assembled. The diffs contain large, 4mm balls that will prolong the diffs' lives, and lightweight, hardened-aluminum outdrives. Snap-on flanges help keep the belt on the gear in case the belt begins to wander. Plastic constant velocity (CV) joints transfer the power from the outdrives to the wheels. The CV joints use molded shafts and steel axles for both durability and light weight. Schumacher's blades are a simple yet effective way to reduce the wear and slop on the aluminum outdrives. Basically, the blades provide a softer cushion between the two metals in contact, in this case, the axle pin and the outdrive. When the blades begin to wear, you can just replace them. The drive pins and diff outdrives remain like new.

PERFORMANCE

RC Madness in Enfield, CT, is our main test track, and it's also one of the only local carpet tracks that allows foam tires on sedans. This would be a challenge: would I be able to get the Axis 2 to hook up on the high-traction track? After all, its chassis was designed for asphalt applications where chassis flex is desired.

First, I tried to get the suspension as stiff as I could possibly make it. I changed the oil to Associated 80WT oil all around with 2-hole pistons and swapped the springs for the stiffest ones I could find. The Axis' chassis flex was definitely felt in the corners.



The differentials are preassembled, as shown here. This really speeds up assembly. The diffs were very smooth and did not need adjusting after installation.

I could feel it as speed was scrubbed off during the weight transfer, especially with the Fantom* 8-turn motor throwing all sorts of power to the wheels.

My first challenge was to rid the car of a chassis tweak; my shock assembly was to blame. Because of the limited down-travel caused by the arms hitting the upper deck, I had to unthread the shock bottoms 3 turns to get the desired ride height of about 4mm. With some bench work, I ironed out the tweak after remeasuring the shock lengths and getting equal down-travel in each corner.

After running through a warmup pack to familiarize myself with the track and the car, I started to run faster laps. Midway through the corners, the car had some mild oversteer, which I attributed to the chassis flex because when I took the corners more slowly, there wasn't any oversteer.

Acceleration was brisk, to say the least. The Fantom motor and SMC* battery combination made the tight track feel even smaller. As I expected, the dual-belt driveline was super efficient and quiet. With an 8-turn motor and 3000mAh cells, I had well over 5 minutes of run time, and power fade was minimal.

The braking was as you'd expect in a full-time 4WD vehicle: brake in a corner and go directly into the boards! If you use the brakes, be sure to do it before you enter the corners. Low-speed steering had a good deal of push, but the car wasn't set up for going slowly. I had to dial out my steering to take care of the twitchiness during high-speed cornering. Again, this was the result of the chassis being better suited to asphalt than to carpet. The good news is that Schumacher is hard at work on a graphite chassis that should stiffen things up considerably. Local team drivers suggested that I use the top deck from the Axis to stiffen the chassis until the graphite one was available. Unfortunately, one wasn't available for me to try.

With all this talk of asphalt, I headed to the office parking lot to see whether the car would do better on the blacktop. It did. It definitely felt a lot better. Even with my stiff indoor setup, the Axis 2 was extremely well-behaved. Gone were the corner-exiting twitchiness and oversteering. It was right at home, as expected; after all, with team driver Paul Lemieux behind the wheel, it did show the NORRCA Nationals field the fast line around the track. At the time we tested it, Schumacher was working on a graphite chassis that would greatly enhance its carpet-handling characteristics.

THE VERDICT

The Axis 2 was designed for one purpose—asphalt racing. Its unique layered chassis will provide the flex needed for racing on that surface. With a few tweaks, it builds on the super-competitive Axis design. I had some trouble getting the car to handle the way I wanted it to on the carpet. It wasn't that the Axis 2 wouldn't be competitive (with more tuning); in kit form, it's designed to be run on asphalt, where its specially designed chassis characteristics would be welcome. I can't fault the car for performing less than perfectly on a surface it really wasn't designed for, and with additional tuning, it should take to carpet racing very well.

The Axis 2 has already proven that it's more than capable by winning the U.S. NORRCA Nationals in its debut race. The Axis 2 is a high-quality car with some innovative features, but it is more at home on pavement than on carpet.

**Addresses are listed alphabetically in "Featured Manufacturers" on page 225. ■*

CEN Fun Factor Rally and Stadium Truck

Two missions, one chassis—
and a lot of fun

by Bob Hastings



The name "CEN" may be unfamiliar, but the company has supplied parts to other RC manufacturers for quite a while. Now, CEN has taken the next step and created its own line of vehicles called "The Fun Factor." This innovative new design is centered around its "smart chassis"—a single platform from which a 2 or 4WD stadium truck, rally car, buggy, or monster can be created. I've always heard that "You can't be all things to all people," but CEN appears to have given it a pretty good try.



DATA CENTER

VEHICLE TYPE 2WD nitro off-road
BEST BUYER Off-road enthusiast with basic engine-operating knowledge

KIT RATINGS (poor, satisfactory, good, very good, excellent)
Instructions Poor
Parts fit/finish Very good
Durability Good
Overall performance Good

SPECIFICATIONS

MANUFACTURER CEN
MODELS Fun Factor Buggy
Schlessers, Fun Factor ST
DISTRIBUTED BY Genka Trading Co.
SCALE 1/10
STREET PRICE \$265

DIMENSIONS
Wheelbase 10.775 in. (274mm)
Width (F/R) 10.11/12.6 in. (257/320mm)

WEIGHT
Total, as tested 76.48 oz. (2,167.44g)

CHASSIS
Type Double deck
Material Aluminum

DRIVE TRAIN
Type Enclosed ring and pinion
Primary Clutch bell/spur gear
Drive shafts Dogbone
Differential(s) Gear
Slipper clutch Single-disc type
Bearing type Bearings in transmission; Oilite bushings in hubs

SUSPENSION (F/R)
Type Upper and lower A-arms
Damping Oil-filled, coil-over plastic shocks

WHEELS
Type One-piece molded plastic

TIRES
Type (F/R) CEN rib pattern/square stud

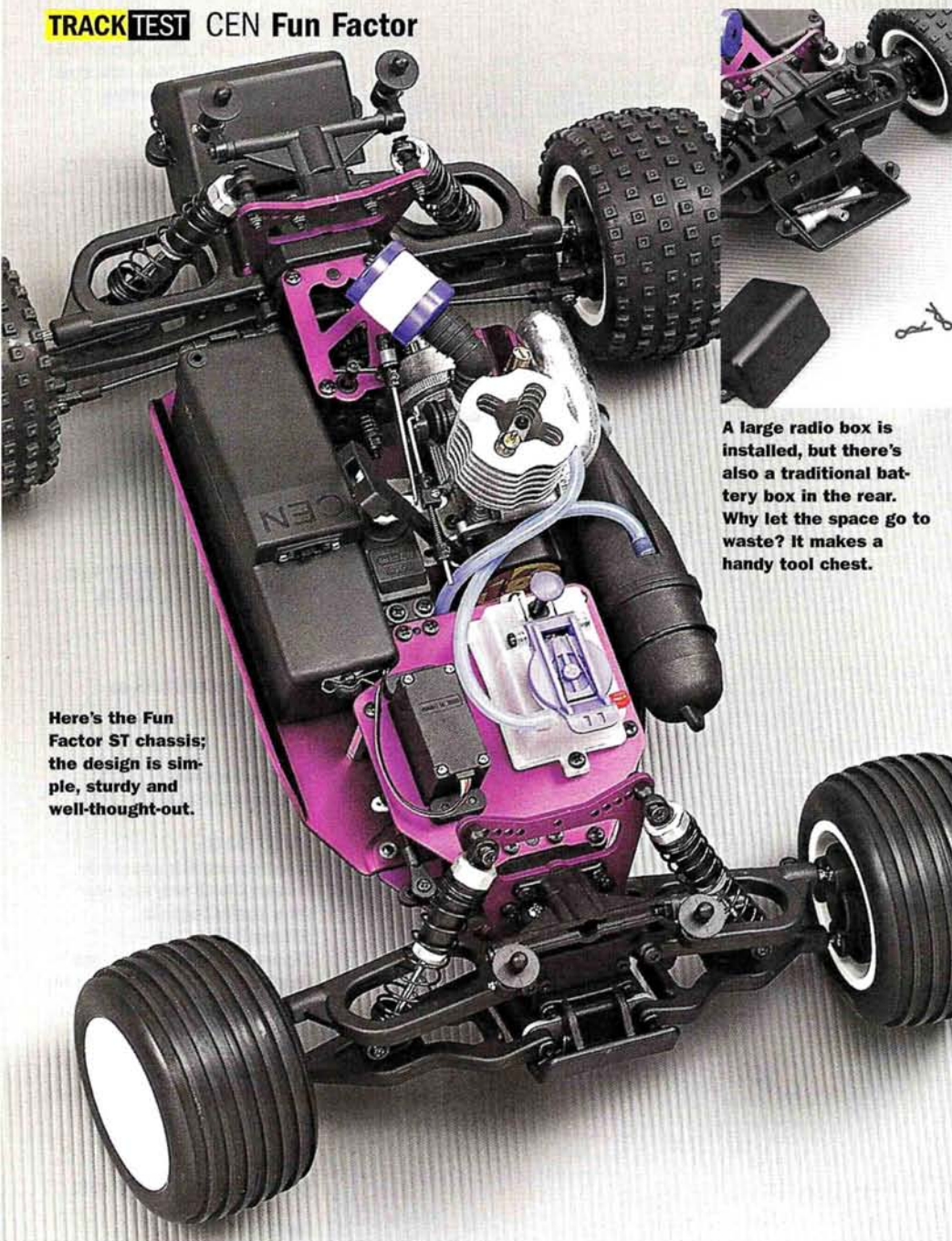
ENGINE AND ACCESSORIES
Engine CEN NT-16
Carb Rotary
Exhaust Aluminum header with composite tuned pipe
Starter Recoil

LIKES

- Painted body with factory-applied decals.
- Plenty of purple-anodized parts.
- Ball-bearing transmission.

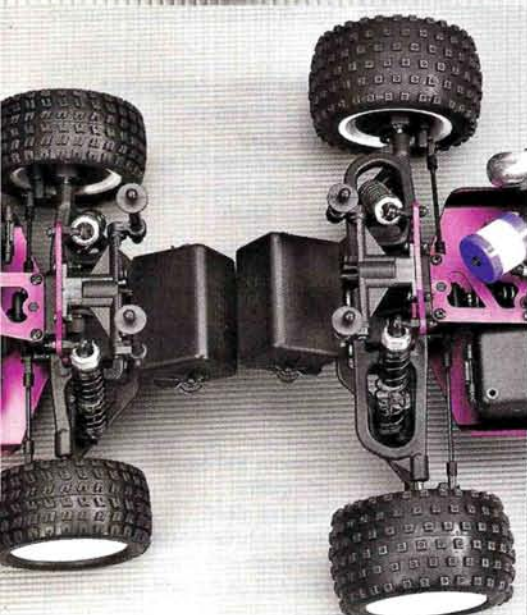
DISLIKES

- Instructions lack "first-timer" guidance and assembly information.
- Tires not glued.
- Needs a better name; it's hard to feel tough with "Fun Factor" splashed on the side of your truck.



Here's the Fun Factor ST chassis; the design is simple, sturdy and well-thought-out.

A large radio box is installed, but there's also a traditional battery box in the rear. Why let the space go to waste? It makes a handy tool chest.



Above: Inside the transmission is a bearing-supported ring and pinion; power is transferred from the spur gear via a single-disc slipper clutch. Left: in this back-to-back photo, you can see the basic differences between the rally configuration on the left and the stadium truck on the right. Notice how the stadium truck uses the wraparound-style suspension arms.

building & setup tips

It's a good thing there isn't a lot to do to get the Fun Factors up and running because little guidance is offered by any of the included documentation. Some sort of beginners' operating guide should have been included to provide some hand-holding for engine starting, break-in and after-run maintenance. Let me jump in with a few tips to help you along the way.

Pre-run inspection. The screws were all snug on our test vehicles, but it's always a good idea to familiarize yourself with the various fasteners that hold the chassis together, check that they're all torqued properly and find out which tools are required to keep everything tight.

Glue the tires. Other than a small sticker on the bottom inside of the box, there are no directions that tell you to glue on your treads, but trust me: no matter how secure the tires seem, without glue, you'll be riding on the rims after one tank of fuel. With the tire in place, run an even bead of tire glue into the channels of the rim where the tire seats. Use a rubber band to hold the tire in place while the glue sets.

Break-in. Grab the piece of protective Styrofoam that the car was zip-tied to during shipping, and use it to block the chassis up off the ground. With the wheels raised, idle two tanks through the engine at the factory needle settings. Let the engine cool down for at least 10 minutes, then repeat. Once these first two tankfuls are out of the way, you can tool around at half throttle for the next two tanks. I never start tuning for power until after I've burned through the fourth or fifth gas-up. Go easy; respect your engine, and always make sure a healthy plume of blue smoke exits the muffler. Your engine will reward you with long, reliable operation.

Post-run. When you're ready to call it quits for the day, remember to take the time to clean the chassis and body. Remove the body and wash it inside and out with mild soap and water. Set it aside to dry, then hit the chassis with a good-quality nitro cleaner such as Traxxas Nitro Wash around the engine and fuel tank to break up the residue that forms there. Be careful around the electronics; avoid blasting them directly with cleaner or water. Although the radio box is well-sealed, don't subject it to a hurricane-force downpour. An old squirt bottle full of water is as good as anything for rinsing off the chassis. As a final step, recheck all the fasteners. Nitro engines vibrate, and that can cause screws to work themselves loose. Catch them now, and you'll be good to go next time.

YOU'LL NEED ■ 12 AA batteries
■ Tire glue ■ Glow-starter ■ Fuel

FACTORY OPTIONS

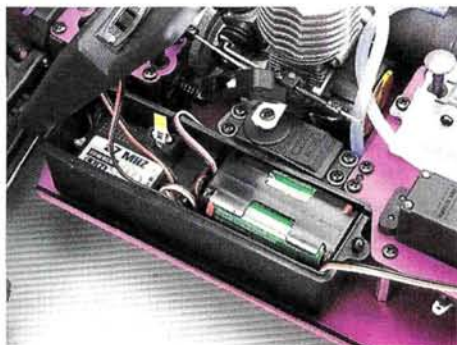
■ 4WD conversion—part no. FFS025 (for buggy and rally), FFS026 (for stadium and monster)

KIT FEATURES

• **Chassis.** The heart of the Fun Factor is a 2.5mm aluminum lower deck. The purple-anodized plate has been radiused at the sides for added stiffness, and the front end features a 30-degree kick-up. A short front upper deck constructed of the same purple stock as the chassis holds the steering servo and fuel tank, and another purple plate braces the spur-gear/slipper-clutch assembly. The right side of the chassis houses an enormous, hinged radio box that easily holds all of the electronics. The radio switch fits into the top of the box's upper tier, but the wires are run to allow full extension of the hatch without accidentally unplugging the switch from the receiver. A traditional dry-cell-type battery box is on the rear of the car, but it took me a minute to realize that there is already a place for the batteries. Better balance? A place to keep your tools? OK; it has a trunk. Perhaps the alternative battery location provides better balance under certain conditions.

• **Drive train.** The Fun Factor achieves 2WD by using "half" of a 4WD shaft system. A 16T clutch bell faces rearward in the chassis and drives a 47T spur gear via a single-disc slipper clutch. The spur's layshaft spins a metal planetary gear ring and pinion. The transmission's internal parts spin on shielded bearings, but the hubs are outfitted with metal bushings. A single disc ahead of the spur controls the braking for the truck.

• **Suspension.** All versions of the Fun Factor have molded upper and lower A-arms, but they are con-



This large radio box provides plenty of room for the pre-installed radio gear.

figured differently on each model. On the buggy and rally versions, the upper arms are actually "wishbones" that curve around the shock absorbers, while the monster's and stadium truck's longer arms allow the shocks to pass through them, much like the upper arms of a T-Maxx. Threaded hinge pins secure the arms, and an aluminum brace helps prevent the front arms from being torn out of

the front bulkhead in a collision. There's an identical brace in the rear, but because it is mounted on the rear of the bulkhead, it only protects the arms from forces that push them toward the chassis; I'd like to see a brace in the front of the rear bulkhead. The shock towers are constructed of purple-anodized aluminum to match the chassis parts but are slightly thicker at 3mm. The front tower provides five

shock-mounting locations, and the rear has four holes for finite suspension adjustment. The shocks are oil-filled coil-overs with molded shock bodies and silver aluminum caps that use clip-type preloads. The front and rear hubs are the pivot-ball type with a unique circular shape. Pivot balls allow finer camber and track-width adjustments, and they also reduce the number of moving parts in the suspension. The steering arm is bolted directly to the hub; since the same hub is used on the rear, the arm becomes the toe link.

• **Steering.** An inverted steering servo from the upper deck drives a 90-degree bellcrank. The bellcranks incorporate a spring-loaded, cam-type servo-saver that features a knurled wheel for preload adjustment. I found that the factory setting was right on the money for general goofing around, and that's good because the unit is difficult to adjust without removing the upper deck.

• **Engine and accessories.** The Fun Factor is equipped with CEN's own NT-16 engine. The recoil-start powerplant features a machined seven-fin cooling head that provides more efficient cooling than a cast component, a twin-needle rotary carburetor for better mixture adjustments and a 270-degree aluminum header and molded tuned pipe for added performance. The engine has a 2-shoe clutch with wraparound spring and engages a steel clutch bell.

CEN Mirage III radio

This 2-channel radio has steering dual rates, a switchable 50:50 or 70:30 throttle, servo-reversing and a bright, power-on LED. The radio is comfortable to hold, but it doesn't have very smooth wheel action, and it looks somewhat dated.



CEN 82108 servos

For off-road action or general tooling around, these standard-type actuators provide adequate torque for steering, throttle and braking. They use industry-standard, center-wire-positive Futaba-type connectors.

ADDITIONAL
TEST GEAR

(not included)

Trinity Monster
Horsepower 20/18
break-in fuel

This is still my favorite fuel for starting a nitro engine. The 20-percent nitro gives the engine plenty of power, yet the added 18-percent lube content keeps wear to a minimum.



The Fun Factors have this unique pivot ball-type circular hub design. The steering arm is screwed directly to the hub in the front, and a similar attachment provides toe adjustment in the rear.



THE COMPETITION

Model	Engine	Carburetor	Ball bearings	Radio	Shocks	Street price*	Reviewed
Associated RC10GT RTR	.15 pull-start	Dual needle	None	Hitec Lynx	Aluminum	\$299.99	02/00
CEN Fun Factor RTR	.16 pull-start	Dual needle	Tranny only	CEN Mirage III	Plastic	\$264.99	03/01
DuraTrax Maximum ST RTR	.12 pull-start	Dual needle	Tranny only	Hitec Lynx	Plastic	\$279.99	04/99
HPI Rush RTR	.15 pull-start	Single needle	Yes	HPI by Airtronics	Plastic	\$279.99	10/00
Traxxas Nitro Sport RTR	.15 electric start	Single needle	Tranny only	Traxxas Qualifier	Plastic	\$259.99	02/98

Cars listed alphabetically by brand. Listed cars are a sample of competitive vehicles; category is too large to list them all.

*Approximate; price varies with dealer.

PUMP UP your engine

This system incorporates the Perry pumps & carbs. Over the past 20 years over 50,000 of these systems have been used successfully in model airplanes worldwide.

Kit for .12 & .15 engines \$84.95 +S/H

Kit for .21 engines \$89.95 +S/H

TO FUEL TANK

Included with the kit: 1-Vp-30 pump, 1-carb, 1-AVM® intercooler, 1-pump clamp, 1-allen wrench, 1-pressure fitting, 1-check valve, 1-thick walled tubing.

This system requires a 6-32 threaded hole be put into the crankcase of your engine and a pressure fitting installed. The pump is designed to operate on crankcase pulses.

THE 1ST FUEL MANAGEMENT SYSTEM DESIGNED ESPECIALLY FOR MODEL CARS AND TRUCKS

AVM intercooler manifold \$24.95 +S/H

The AVM Intercooler intake manifold is computer designed and CNC-machined. The manifold was developed to accelerate incoming air fuel mixture and reduce temperature. This net result is less frustration associated with "hot restarts". During testing there was over a 100 degree difference between the intake manifold and head temperature.

The AVM Intercooler manifold is also available for non-pump application. Installation is simply placing the manifold between your carb and the engine block.

■ If you purchase the pump/carb system from Conley Precision, we will drill and tap your engine crankcase for just \$20.

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TRACK TEST CEN Fun Factor



• **Body, wheels and tires.** To prep the body for running, there's nothing—nada, zero, zilch—to do. The "P&D" on the box stands for "painted and decorated"; the decals are on; the Lexan is trimmed; the cooling hole has even been drilled in the windshield. Whether or not you like the looks of the Renault Mégane rally body, you have to acknowledge that CEN has flawlessly replicated its unique style and created a perfectly scaled-down RC version of the 2000 Dakar Rally winner. The stadium body is more to my taste, and though generically styled, it looks very similar to the Ford F-150 off-road bodies currently available. All of the Fun Factors are equipped with white, one-piece, slotted-plastic wheels. The holes in the wheels are not just for style; they also permit pivot-ball access without the need to remove the wheels from the chassis. The stadium truck and rally car both feature ribbed front tires with square-stud-pattern rears. Be sure to glue the tires before running, and adding tire foams would be a big plus, too.

PERFORMANCE

After four tanks of Trinity* 20/18 break-in fuel had been run through the engine, the car was ready to rally. The .16 engine is extremely responsive and easily blurs the tires regardless of the surface. I rammed around the office parking lot for a while, enjoying the scale-like lean to the body. It wasn't long before I was reenacting TV clips from the Speedvision channel, attempting that perfect power-on slide through the corner. In their stock configuration, the Fun Factors are a bit bouncy in the rear, and the chassis bottom out when really pressed; furthermore, the absence of tire foams does little to smooth out the ride. I'm sure that a slightly heavier shock oil would cure a lot of the quirks. Steering inputs are immediate, but there's quite a bit of power-on push. For "funning around"—the chassis' intended purpose—the car is a riot, but I know extended asphalt runs will smoke the nubs off the

rear tires in no time. The radio takes a little getting used to; the grip is comfortable, but the steering and trigger actions feel somewhat "notchy." When I run the Buggy Schlessler at work, my favorite new game consists of a short run through the parking lot and then onto an adjacent ball field for true-to-life rally driving. No transponders or stopwatches are involved—just the personal challenge of multi-surface driving.

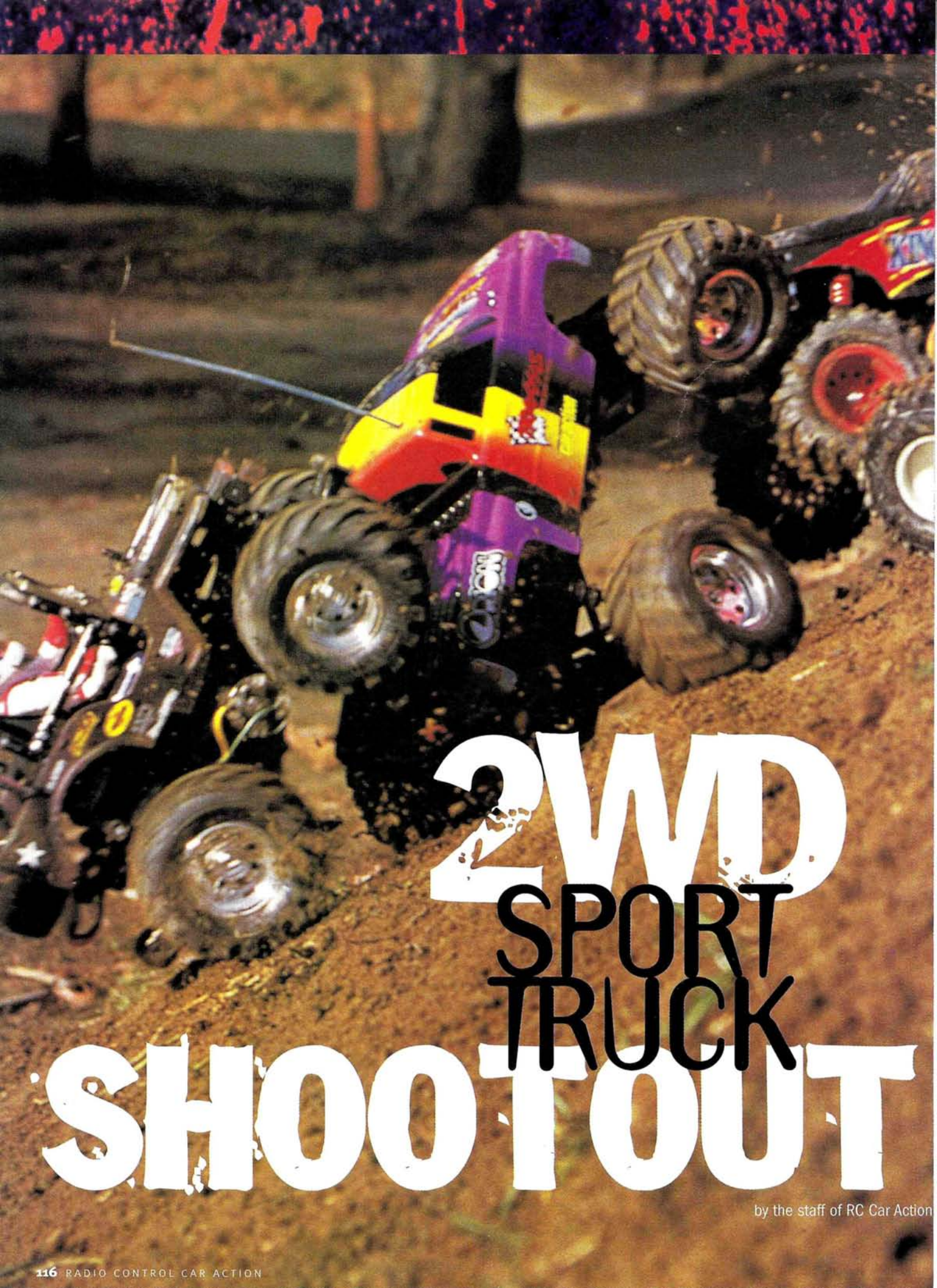
The Fun Factor ST's performance is very similar to that of its sister version, the Rally; not surprising, because of the shared drive train, but the stadium truck's wider stance and more aggressive tires allow it to handle the softer dirt with much more agility. The truck is well-balanced overall and tracks easily around tight corners without becoming loose. During testing, I also found the suspension a little soft and bouncy in the rear; this is more of an observation than a complaint because I consider tuning the suspension for optimum performance to be as much a necessity as tuning the engine. Though the ST version lacks the scale appeal of the Buggy Schlessler, it is an easier truck to drive.

THE VERDICT

The CEN vehicles are a lot of fun to drive; the NT-16 engine is strong, and the labor to get them going consists of nothing more than adding batteries and gluing on the tires. Add this all up, and I have to say yes; the fun factor is high. Only after running the cars do I understand where their name comes from.

Since the Fun Factor vehicles are based on the same "smart chassis," they can also be converted to suit your desires by swapping components from other vehicles in the series. Drive a stadium truck this month; convert it to a rally car next. The multipurpose design stretches the value of the vehicle beyond its already bargain price.

*Addresses are listed alphabetically in "Featured Manufacturers" on page 225. ■



2WD SPORT TRUCK SHOOTOUT

by the staff of RC Car Action



Associated RC10T3 RTR

Kyosho ULTIMA ST

MRC IRONMAN

MRC MT-10S

Tamiya KING BLACKFOOT

Tamiya WILD WILLY 2

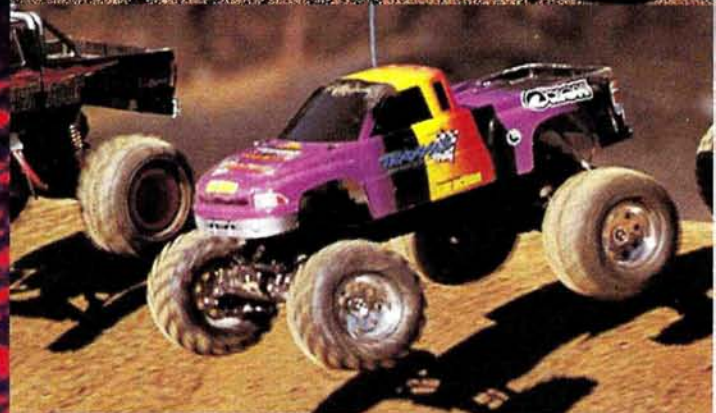
Tamiya BLITZER BEETLE

Tamiya STADIUM THUNDER

Traxxas STAMPEDE

Traxxas RUSTLER

Getting started in RC has never been easier, especially if you make your first vehicle a 2WD electric off-road truck. There are plenty of tough-truck options, and each offers a unique take on what the manufacturer thinks first-time buyers are looking for. Some are pure fun machines; others place importance on race-style performance; still others put a premium on monster style and go-anywhere toughness. So, which one should you buy? We've rounded up a complement of current 2WD electric stadium and monster trucks—10 in all (six of 'em are RTRs)—and put them to the test to see which is the best.





Associated RC10T3 RTR

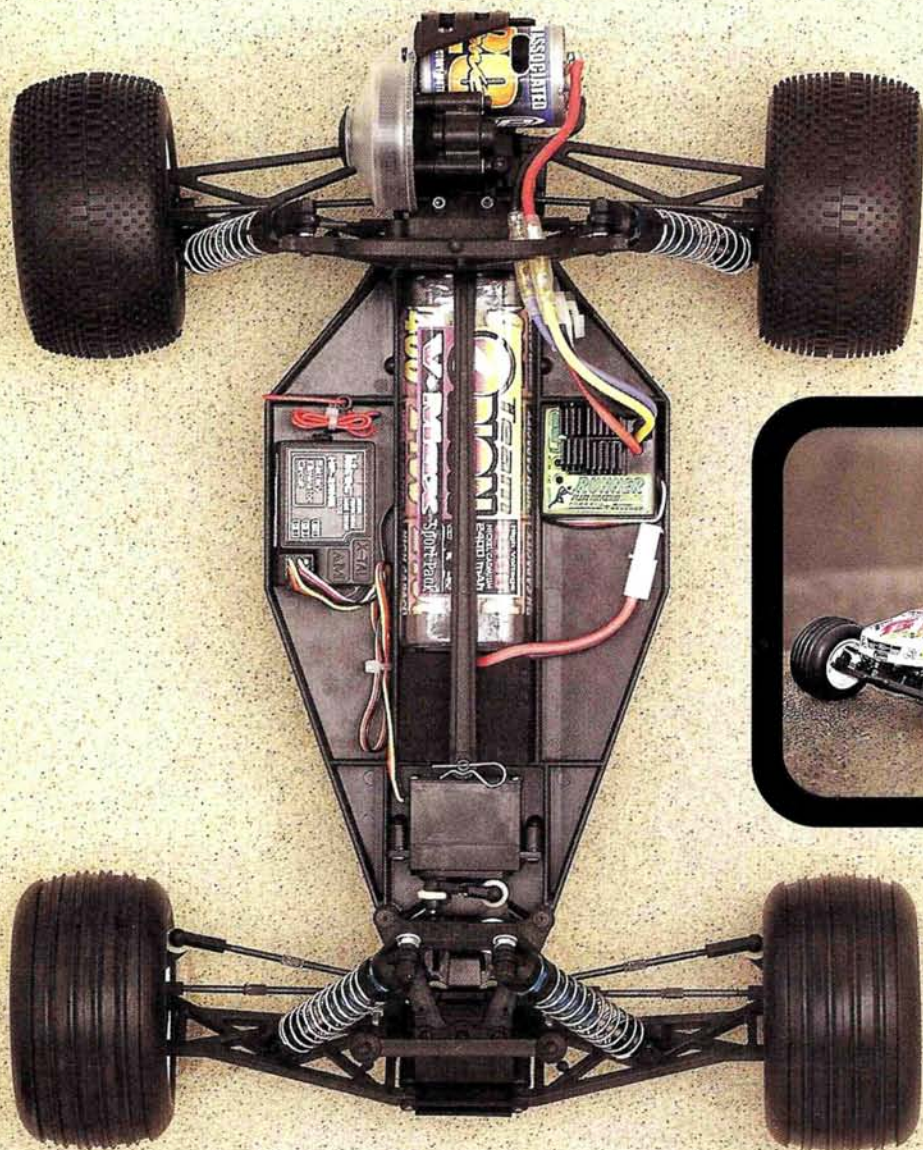


BEHIND THE WHEEL

Let's put it this way: you can take the truck out of the race, but you can't take the race out of the truck. Thanks to its racing heritage, the T3 RTR was the best-performing truck of the bunch in terms of race-style action. It's sure-footed, nimble, jumps well and, if

you're game, the T3 RTR is ready for your first taste of racing straight from the box. If that's what you're looking for in a truck, get the T3. In the backyard and the woods, the T3 wasn't quite as capable; its low ride height caused it to hang up on rocks and roots frequently, and its racing-style tires didn't have a lot of

traction for the low speed and high torque required for climbing over obstacles. It's not really a T3 problem; it's a problem for stadium trucks in general.



- Complete parts interchangeability with all T3 kits and hop-ups.
- Pavidis-style, factory-finished body.
- Genuine LRP electronic speed control.
- Blue-anodized aluminum shocks.
- Hitec Lynx Sport radio system.
- Includes ball differential and effective slipper clutch.
- Powerful 20-turn motor.



- No ball bearings.



SNAPSHOT SPECS

Kit/RTR RTR only as shown; also offered in kit form as Basic, Team and Factory Team versions

Top speed 18.04mph

Speed control LRP Runner, electronic

Motor 20-turn, 540-style

Street price \$240

Not included Stick pack, charger, transmitter batteries



- Factory-painted body.
- Upgradable for racing.
- Quality radio gear.



- Fragile front body mount.
- Low top speed.



SNAPSHOT SPECS

Kit/RTR RTR only

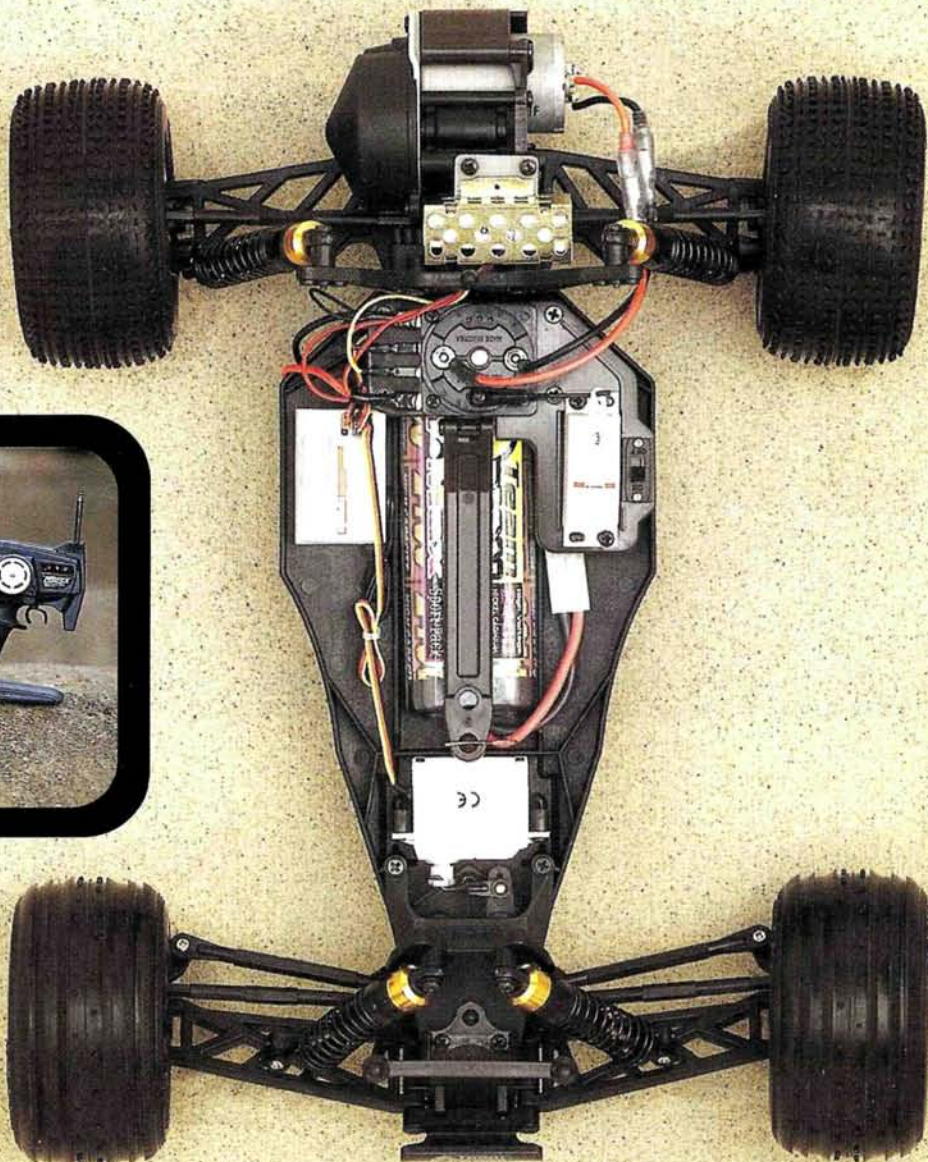
Top speed 13.49mph

Speed control 3-step mechanical w/reverse

Motor 27-turn 540

Street price \$190

Not included Stick pack, charger, transmitter batteries



Kyosho

Ultima ST ReadySet

BEHIND THE WHEEL

The Ultima ST ReadySet is closely related to Kyosho's Ultima ST Type R full-on racing truck. Many parts are interchangeable, although the ReadySet uses more flexible plastics for increased durability (good move).

Nonetheless, the front body mounts proved to be fragile and didn't last long. Like other stadium trucks, the Ultima quickly ran out of ground clearance in the rough stuff but shone on racetrack-style surfaces. The only thing we wished for was more speed; with the included

motor and gearing, the Ultima is outrun by all the other stadium-style trucks. Otherwise, it shines with a good-quality radio system and a good-looking, prepainted body.





MRC

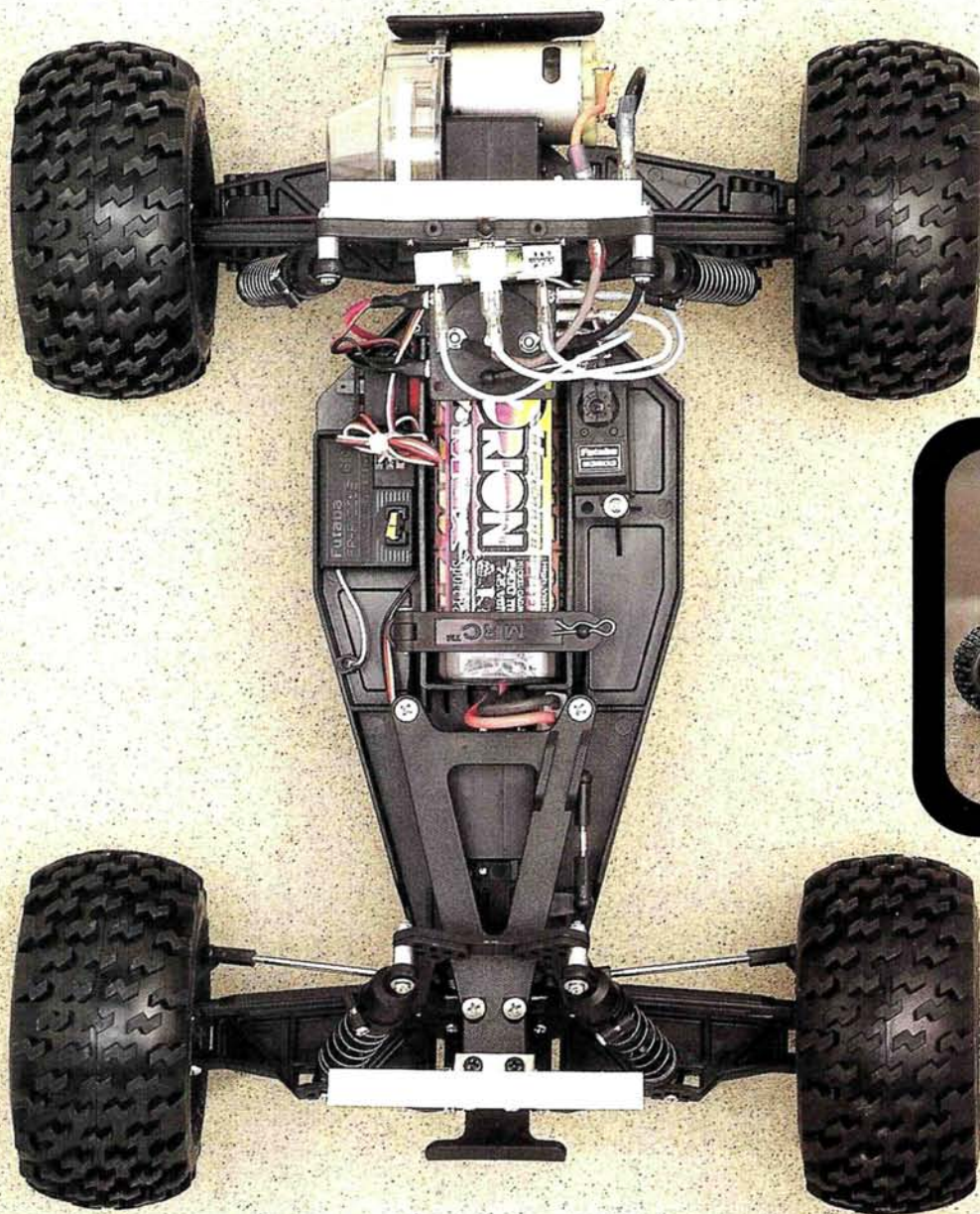
Ironman

BEHIND THE WHEEL

The Ironman is MRC's most monstrous 1/10 truck, thanks to its large S-tread tires, but it's a stadium truck at heart with its A-arm/camber-link suspension. The combination works; the Ironman handles almost as well as the racier T3, Ultima and Rustler, but it outpaces those

three in the woods, thanks to its extra-tall tires and long-travel suspension. The transmission whines more noticeably than the other trucks', but performance and run time did not seem impaired. It's a fun truck and a good value, whether you buy it as an RTR or a kit. We tested the RTR and found the assembly first-rate.

Bonus points for genuine Futaba radio gear, too. If the included Dodge-style body isn't your style and you like to play on the pavement, MRC offers the Hammerhead, a street version of the Ironman.



- Good-looking body.
- Very tough.
- Long-travel suspension.
- RTR includes genuine Futaba radio gear.
- Includes extra spur gears to alter gear ratio.



- Loud gearbox.



SNAPSHOT SPECS

- Kit/RTR RTR tested; also sold in kit form
- Top speed 14.37mph
- Speed control 3-step mechanical w/reverse
- Motor 27-turn 540
- Street price (RTR) \$230
- Not included (RTR version) Stick pack, charger, transmitter batteries



- Very tough.
- Long-travel suspension.
- Slipper clutch.
- RTR includes genuine Futaba radio gear.



- Loud gearbox.
- Shoebbox body.



SNAPSHOT SPECS

Kit/RTR Kit tested; also sold in RTR form

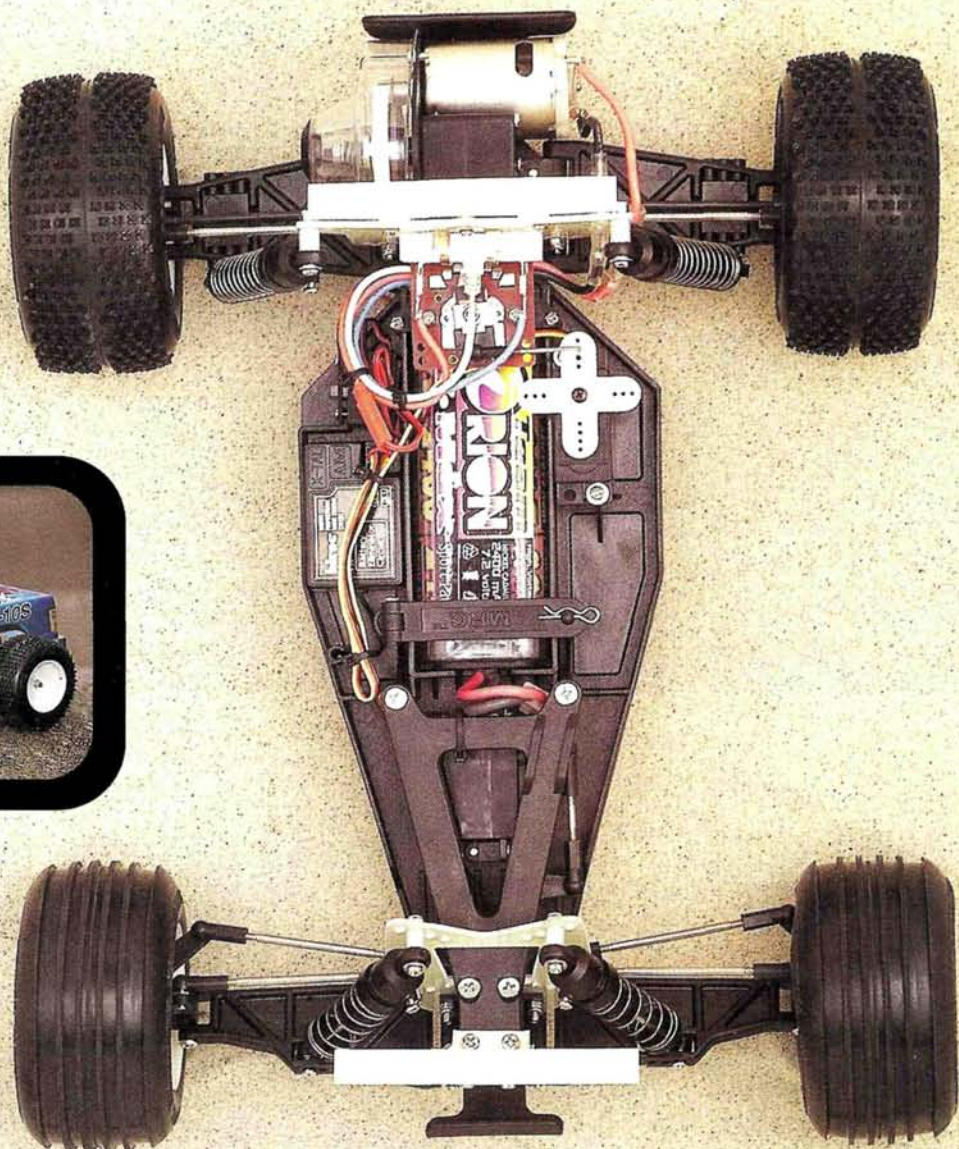
Top speed 15.59mph

Speed control 3-step mechanical w/reverse

Motor 27-turn 540

Street price (RTR) \$185

Not included (Kit version) Stick pack, charger, radio gear, paint



MRC

MT-10S

BEHIND THE WHEEL

The MT-10S is very closely related to the Ironman; the only differences are the MT's fiberglass shock towers (the Ironman has sleeker molded units), a slipper clutch (which the Ironman omits), low-profile, racing-style tires and a boxier stadium-truck body. As expect-

ed, performance was very similar to the Ironman's, but the MT's less aggressive, smaller-diameter tires did not have the climbing power of the Ironman's treads. The slipper clutch wasn't really a factor given the mild power output of the truck's 540 motor, but if you upgrade to a faster powerplant later, you'll find it very

useful. Like the Ironman, the MT is a good value and a solid machine, and it can be purchased as a kit or an RTR with Futaba radio gear. There's also a monster-truck version, the MT-10M, which sports larger tires and a different body.





Tamiya

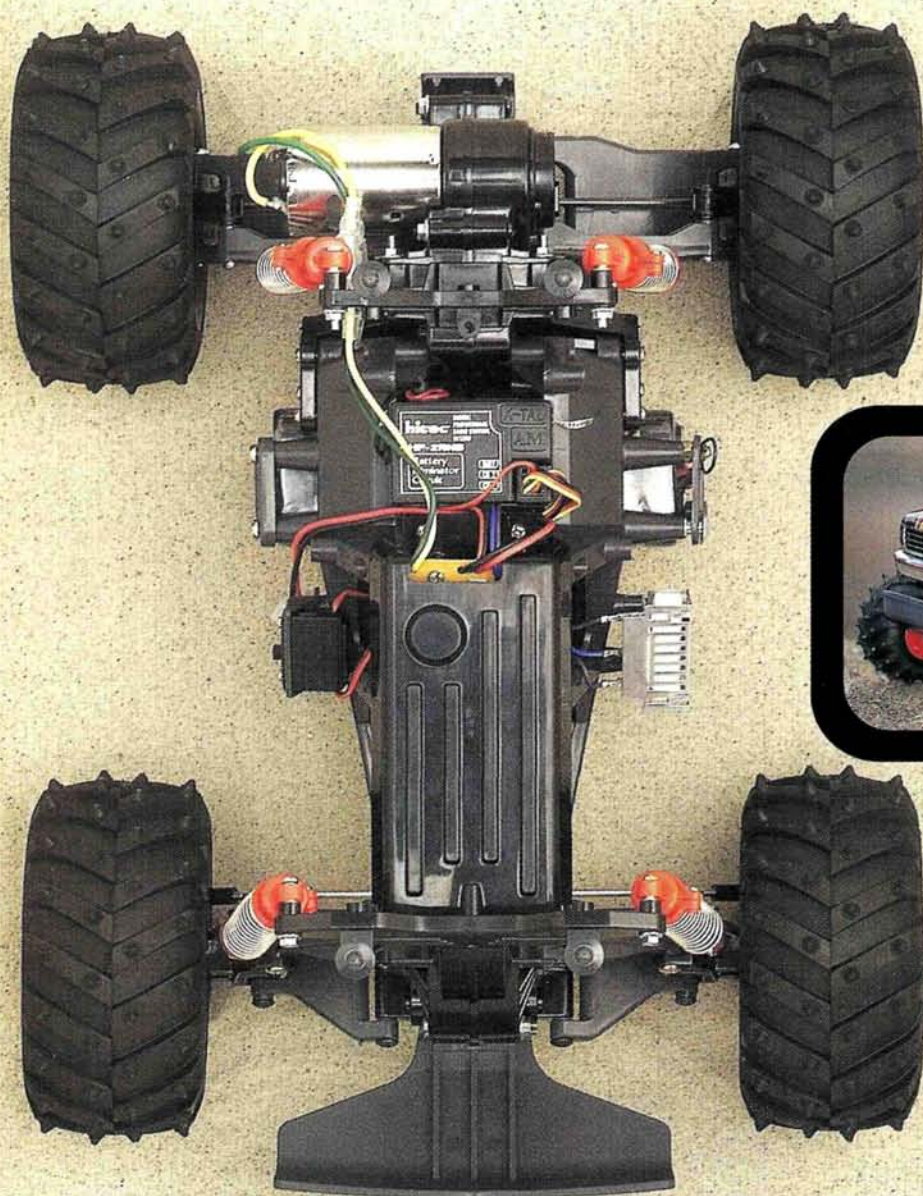
King Blackfoot

BEHIND THE WHEEL

The Super Blackfoot is a bit of handful; it has a narrow track and a tall center of gravity, and this makes for a tippy ride when coupled with the stiff friction-shock

suspension. Though it might be lacking in pure performance, the King is nonetheless fun to drive; it does wheelies, climbs well and looks terrific with its black-out body. The truck is at its best when climbing over

obstacles and goofing around in general; unless you're looking to win neighborhood races with speed and a supple suspension, you won't be disappointed with the super Blackfoot.



- Highly detailed "hard" body.
- Great climber.
- Fun to build.



- Stiff suspension makes the King unforgiving at speed.
- "Hard" body is easily damaged.



SNAPSHOT SPECS

- Kit/RTR Kit only
- Top speed 13.33mph
- Speed control 3-step mechanical w/reverse
- Motor 27-turn 540
- Street price \$110
- Not included Stick pack, charger, radio gear, paint

WHAT ABOUT LOSI?

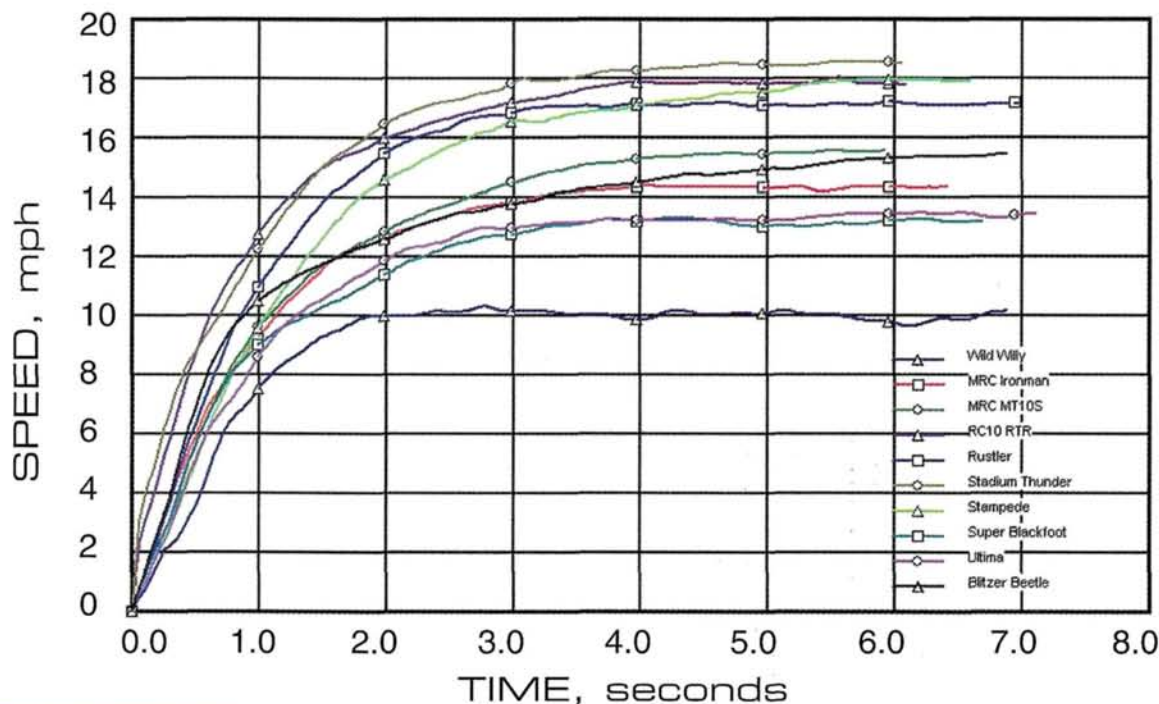
Right now, Team Losi* doesn't offer a true entry-level or RTR truck, if you define "entry level" as a kit that includes bushings, a motor and some type of speed control. That's the basic recipe for trucks featured in this shootout, so we didn't include a Losi. But that doesn't mean Losi might not have the perfect truck for you; if you want to start racing on a budget and don't want to rebuild an RTR or hop up a "sport" truck to do the job, check out the Dirt Spec Triple-XT. It's basically the same as the full-race Triple-XT, but Losi trims costs by including telescoping plastic drive shafts instead of steel units, "plain" aluminum shocks instead of hard anodized, and bushings in the hubs instead of bearings (the tranny still has bearings). You can race the Dirt Spec truck in any truck class, but if your track runs a Dirt Spec class, you'll race other Dirt Spec trucks exactly like yours, right down to the blue tires. If you don't plan to race, a Dirt Spec Triple-XT makes an excellent, high-performance bash-around truck. If you're up to building your own truck from the ground up, and you like the idea of owning a piece of the Losi racing heritage, then by all means, consider a Dirt Spec Triple-XT.



Under the Gun

It just wouldn't be a shootout without a radar test, so we set up Radio Control Nitro's Stalker Acceleration Testing System to see just how fast the trucks could go and just how quickly they could reach their top speed. The results were surprising; the Tamiya Stadium Thunder was quickest off the line and had the fastest top speed, and only it and the Associated T3 were

able to break the 18mph barrier. With their included taller gears, the Traxxas Stampede and Rustler would have joined the club, but we tested the trucks exactly as they came out of the box. If you purchase (or already own) one of the trucks reviewed and ever get to radar-test it, don't be surprised if it's a little slower (or faster) than what you see here; quality of assembly, track conditions and the type of battery used all affect top speed. Nevertheless, on the day we tested them, these are the numbers we got!



VEHICLE

Distance traveled in feet after:

0-1 sec. 0-2 sec. 0-3 sec. 0-4 sec. 0-5 sec. 0-6 sec.

MAX SPEED (mph)

VEHICLE	0-1 sec.	0-2 sec.	0-3 sec.	0-4 sec.	0-5 sec.	0-6 sec.	MAX SPEED (mph)
Associated RC10T3 RTR	12.11	33.87	58.33	84.12	110.30	136.52	18.04
Kyosho Ultima ST RTR	7.19	22.71	41.22	60.52	79.95	99.54	13.49
MRC Ironman	8.22	24.98	44.63	65.39	86.43	107.41	14.37
MRC MT-10S	8.0	25.02	45.28	67.28	89.90	109.9	15.59
Tamiya Stadium Thunder	12.24	33.99	59.3	85.81	112.82	139.96	18.57
Tamiya Blitzer Beetle	9.42	26.65	46.22	67.05	88.69	110.9	15.47
Tamiya King Blackfoot	7.81	22.97	41.01	60.23	79.60	98.83	13.33
Tamiya Wild Willy 2	5.9	19.37	34.24	48.98	63.75	78.41	10.32
Traxxas Rustler RTR	9.14	29.21	53.21	78.23	103.34	128.46	17.22
Traxxas Stampede	7.58	26.05	49.07	73.72	99.21	125.39	17.97

2WD SPORT TRUCK SHOOTOUT



Tamiya

Wild Willy 2

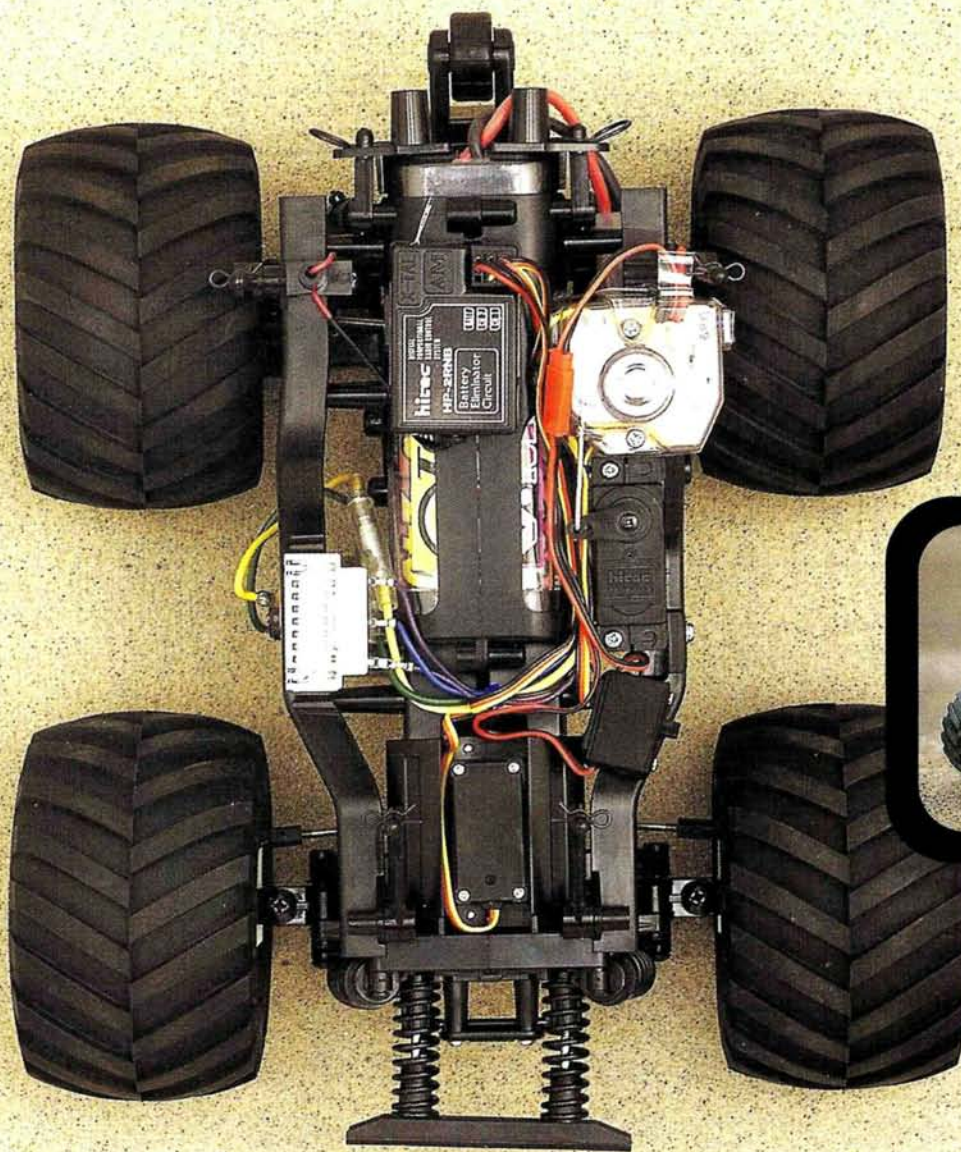


BEHIND THE WHEEL

Everybody loved the Wild Willy 2, even though it was the "worst" performing truck; it isn't fast, has little suspension and tips over easily. I put quotes around "worst" because the Wild Willy is playing by an entirely different

set of rules; it isn't even trying to be anything like the other machines in the shootout. Plain and simple, the Wild Willy is strictly for fun. It does wheelies constantly, and that never gets old. When not riding around on the wheelie bar, we had fun just noodling around with

the little jeep; with its super-short wheelbase and ultra-light front end, navigating any off-road course was challenging fun. And it's fun that lasts; it wasn't hard to squeak 20 minutes out of the Orion 2400 pack we used in our test.



- Does wheelies on command.
- Injection-molded "hard" body and driver are highly detailed.
- Beautiful chrome wheels and tough-looking chevron tires.



- Friction shocks and wheelie-inducing weight distribution limit off-road capability.
- "Hard" body is easily damaged.
- Pricey.



SNAPSHOTSPECS

Kit/RTR Kit only

Top speed 10.32mph

Speed control 3-step mechanical w/reverse

Motor 27-turn 540

Street price \$130

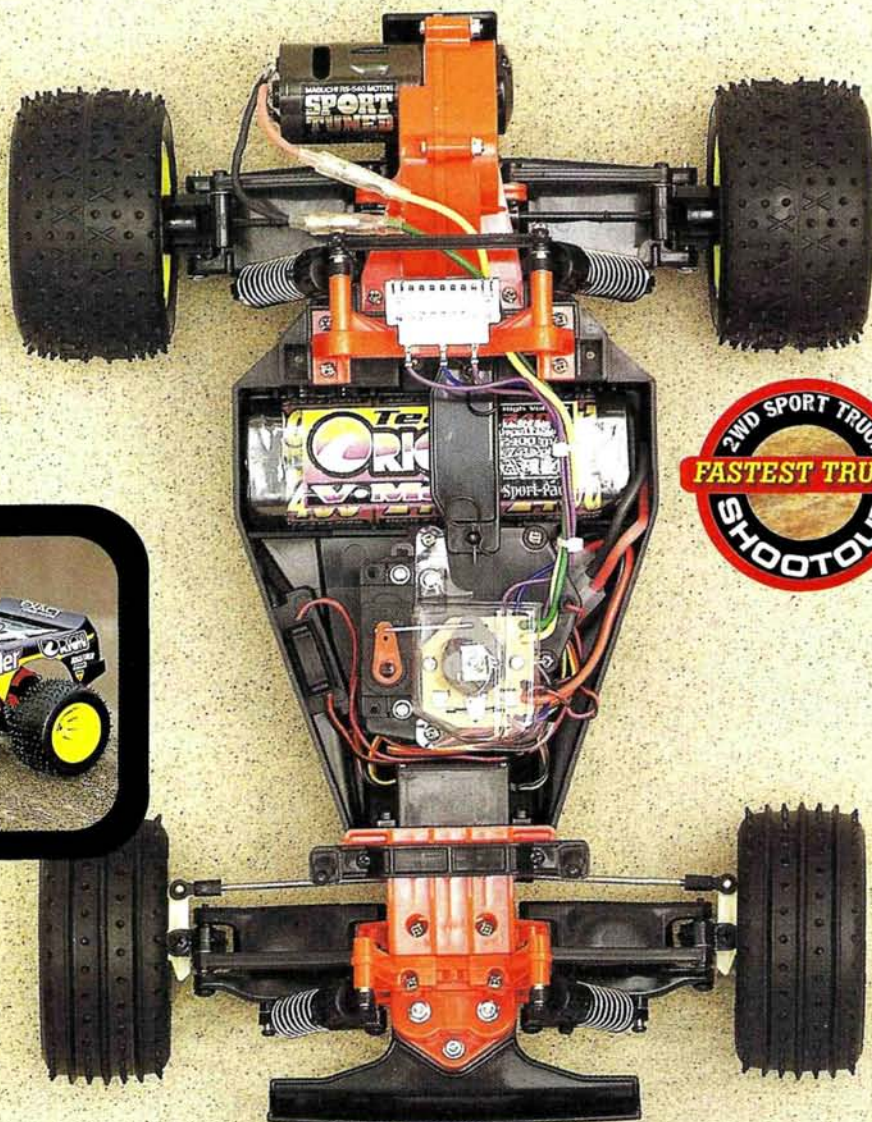
Not included Stick pack, charger, radio gear, paint



- Stadium Thunder includes a fast "Sport Tuned" motor.
- Blitzer Beetle's "hard" body is fully detailed.
- Fun to build.
- Simple, bomb-proof transmission.
- Handles a lot better than you would expect.



- Blitzer Beetle's "hard" body is easily damaged.



SNAPSHOT SPECS

Kit/RTR Kit only

Top speed Stadium Thunder—18.57 mph

Top speed Blitzer Beetle—15.47 mph

Speed control 3-step mechanical w/reverse

Motor 27-turn 540 (Beetle), 20-turn 540 (Thunder)

Street price \$110

Not included Stick pack, charger, radio gear, paint.

Tamiya

Blitzer Beetle and Stadium Thunder

BEHIND THE WHEEL

The Stadium Thunder and Blitzer Beetle have identical chassis that are differentiated only by the color of the plastics; the red parts you see in the photo of the Stadium Thunder's chassis are molded in black on the Beetle. Performance is also equal in terms of handling

and durability, but the Thunder's "Sport Tuned" motor gives it a speed edge over the Beetle—as well as all the other trucks tested. Otherwise, both machines were a lot of fun to drive, and—judging by transmission noise and run time—seemed to have the most efficient transmissions. The Thunder and Beetle have relatively short

suspension arms, but the shocks are very smooth and both handled quite well—better than we expected of trucks with short suspension arms and no-bellcrank steering.





Traxxas

Stampede

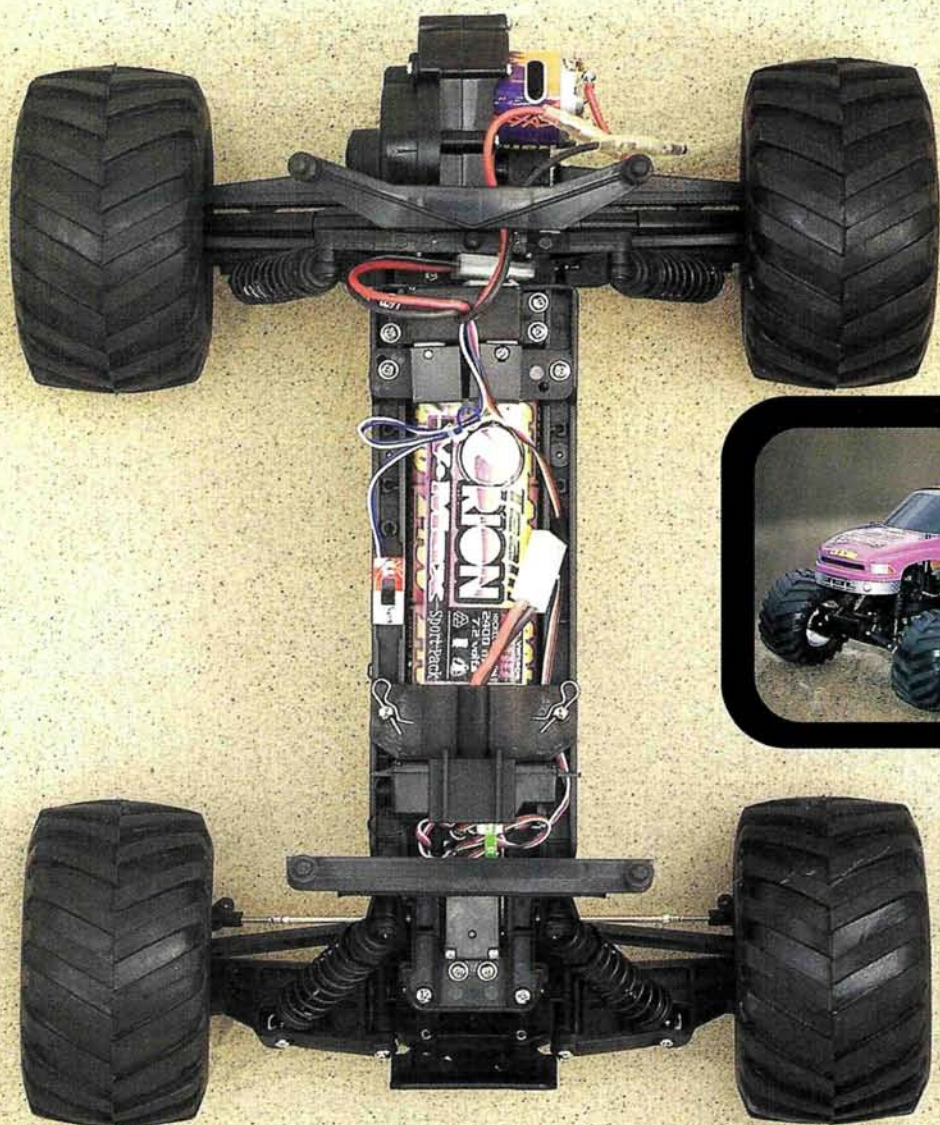


BEHIND THE WHEEL

The Stampede is a surprise; it really shouldn't handle as well as it does, given its high-riding chassis. By the same token, bumblebees shouldn't be able to fly, but they can, so go figure. The Stampede can carry quite a

bit of cornering speed without flipping, jumps like a racetruck and can climb just about anything, thanks to its large chevron tires and ample ground clearance. It's also fast, and that's always a nice surprise when you're driving a monster truck; it does wheelies, too. It's the

all-around best-performing machine, but we did find ourselves wishing for a more substantial radio. The included Qualifier system functions well but feels toy-like.



- Mondo ground clearance.
- Factory-finished ProGraFix body.
- Chrome wheels.
- Ball-bearing transmission with slipper clutch.
- Telescoping, universal-joint drive axles.
- Fast 20-turn motor.
- Includes electronic speed control.
- Additional, smaller spur gear supplied for maximum speed.



- Radio has a toy-like feel.



SNAPSHOT SPECS

Kit/RTR RTR tested; also sold in kit form

Top speed 17.97mph

Speed control Traxxas XL-1 electronic (also available with mechanical speed control)

Motor Traxxas Stinger 20-turn

Street price (RTR) \$210

Not included Stick pack, charger, transmitter batteries



Traxxas

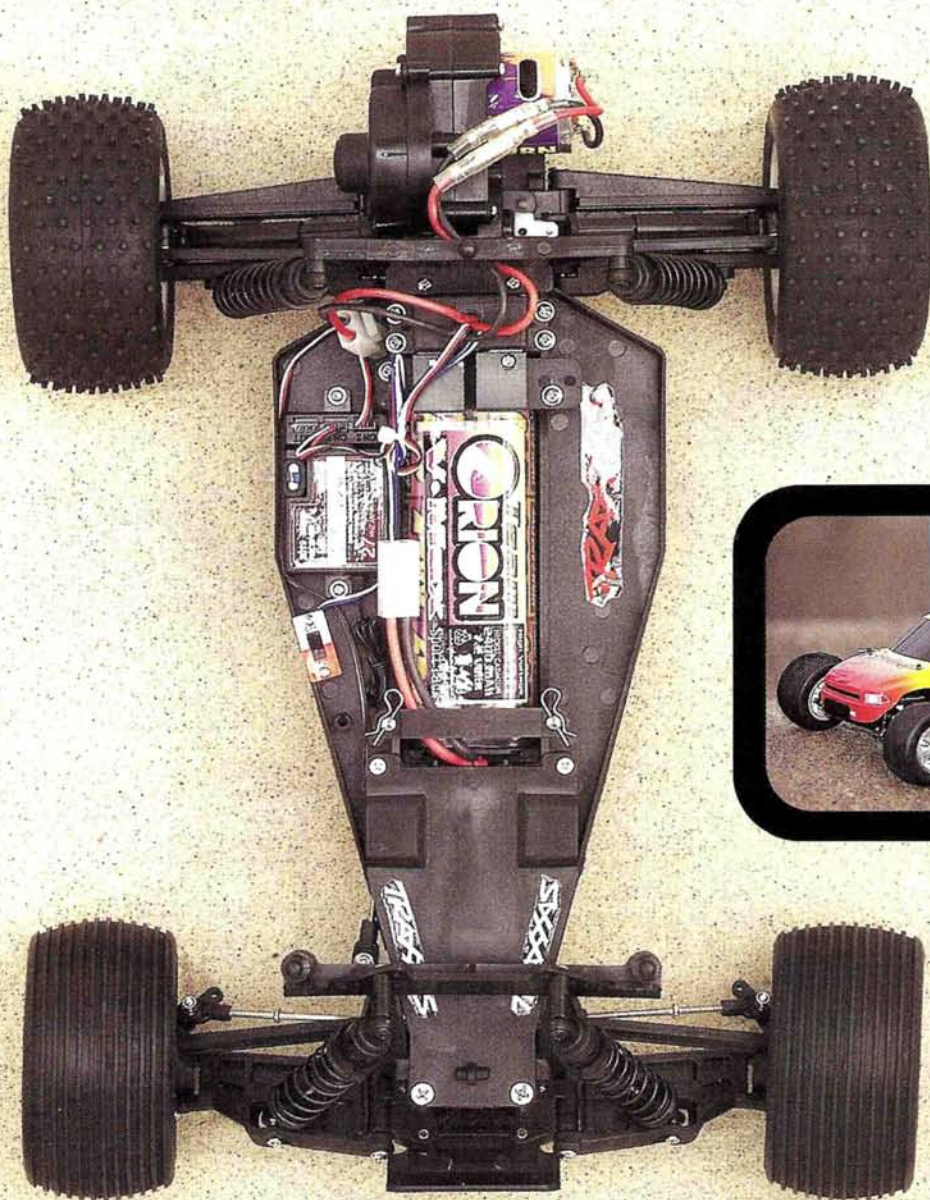
Rustler

BEHIND THE WHEEL

The Rustler gave up ground to the monster-style trucks in rough woods terrain, as did the other stadium-type trucks, but it was certainly among the best of the stadium machines, and it's an excellent RTR package; no wonder, since Traxxas is widely held to be the king of

ready-to-run. The Rustler is faster than many of the other trucks, thanks to its Stinger 20-turn motor, and that alone increases the fun factor, but it's nice to know there's a competently handling chassis under the factory-finished body. If you think you might like to try racing, the Rustler will get you started, and it can be

upgraded for even better performance. For fast driving and jumping on racetrack-like surfaces (that is, no potholes the size of kitchen sinks, roots as tall as curbs, or boulders that look like something from "Land of the Lost"), the Rustler rates highly.



- Factory-finished ProGrafix body.
- Chrome wheels.
- Ball-bearing transmission with slipper clutch.
- Telescoping, universal-joint drive axles.
- Fast 20-turn motor.
- Includes electronic speed control.
- Additional, smaller spur gear supplied for maximum speed.



- Radio has a toy-like feel.



SNAPSHOT SPECS

Kit/RTR RTR tested; also sold in kit form

Top speed 17.22mph

Speed control Traxxas XL-1 electronic (also available with mechanical speed control)

Motor Traxxas Stinger 20-turn

Street price (RTR) \$190

Not included (RTR) Stick pack, charger, transmitter batteries

2WD SPORT TRUCK SHOOTOUT

One of the most-asked questions we encounter at RC Car Action is this: which hop-up parts should I get for my truck? The answer depends on which vehicle you have, but most trucks will run longer and go faster if you add the following three items:

■ BALL BEARINGS

Replacing your truck's bushings with bearings will help it run faster and longer by reducing friction, and the bearings won't develop "play" or get all crusty like bushings tend to. If you can spring for rubber-sealed bearings, get 'em; they're maintenance-free. Less expensive shielded bearings need to be removed and cleaned every so often—how often depends on how wet and/or dusty the driving conditions are.

BENEFIT: a little more speed, a little more run time and a lot more precision.

DOWNSIDE: cost and hassle. A set of bearings will run at least \$30, and you basically have to rebuild your truck to install them. If you can, buy the bearings when you buy your truck so you can install them as you build. Got an RTR? You'll have to tear it down, but look at the bright side: when you've finished, you'll know your truck inside and out.



BIG3 GOTTA-HAVE HOP-UPS

■ MODIFIED MOTOR

The wheezy 540 motors included with most entry-level trucks are fine when you're learning to drive, but you'll soon yearn for more speed and power. To punch up the performance of your rig, install a machine-wound modified motor (for a complete dyno review of the available machine-wound mod motors, check out the August 2000 issue of *RC Car Action*). A machine-wound motor is much less expensive than a hand-wound mill, and if you get a ball-bearing-equipped one, it will last a long time.

BENEFIT: more speed and power.

DOWNSIDE: the hotter motor will probably burn out your mechanical speed control, which brings us to the next hop-up ...



■ ELECTRONIC SPEED CONTROL

Your truck will work fine with a mechanical control, but its jerky, three-step action makes it tough to drive with any precision—and we hope you didn't find that out only after you knocked over a lamp and drilled the family cat. In addition, a mechanical speed control's resistors get hot enough to burn (which wastes a lot of power), and you'll soon be bummed to discover the mechanical control needs constant cleaning to work properly. An ESC, on the other hand, requires no maintenance, doesn't get hot (unless you abuse it), gives you total throttle control from a crawl to wide open and simultaneously lightens and neatens your truck by eliminating the throttle servo and resistor and all their assorted wires and linkages.

BENEFIT: more control, more convenience and more run time—and that means more fun. There's no speed boost, if that's what you're after, but the ESC will handle faster motors, and a faster motor equals a faster truck.

DOWNSIDE: cost, although we're not talking a ton of money here; the bargain-priced Traxxas XL-1 costs about \$30, and models from Novak*, LRP* (pictured), DuraTrax* and others that have more features start at about \$45.



SPECIFICATIONS and FEATURES

	Associated RC10T3 RTR	Kyosho Ultima ST	MRC Ironman	MRC MT-10S	Tamiya King Blackfoot	Tamiya Stadium Thunder
Wheelbase	11.25 in. (286mm)	11.14 in. (283mm)	11.1 in. (282mm)	11.1 in. (282mm)	10 in. (254mm)	10.24 in. (260mm)
Width	12.36 in. (314mm)	12.40 in. (315mm)	12.8 in. (322mm)	12.8 in. (322mm)	11.6 in. (295mm)	11.65 in. (296 mm)
Weight	61.12 oz. (1732g)	76.64 oz. (2172g)	76.6 oz. (2172g)	70.40 oz. (1995g)	86.5 oz. (2452g)	64.32 oz. (1823g)
Max. ground clearance	2.05 in. (51mm)	1.70 in. (43mm)	1.94 in. (50mm)	1.62 in. (41mm)	2.28 in. (58mm)	1.39 in. (36mm)
Differential type	Ball	Bevel gear	Ball	Ball	Bevel gear	Bevel gear
Drive axle type	Dogbone	Dogbone	Dogbone	Dogbone	Dogbone	Dogbone
Camber links	TB	OPP	OPP	TR	OPP	OPP
Shock material	Aluminum	Plastic	Plastic	Plastic	Plastic	Plastic
Damping	Fluid	Fluid	Fluid	Fluid	Friction	Fluid
Bearing type	MB	MB	PB	PB	PB	PB
Slipper clutch	Yes	No	No	Yes	No	No
Accepts "standard" gears	Yes	No	No	No	No	No
Speed control	Electronic	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
Painted body w/RTR	Yes	Yes	Yes	No	Molded color	No
Motor	20 turn 540	540 Stock	540 Stock	540 Stock	540 Stock	Sport Tuned
Radio gear w/RTR	Hitec Lynx Sport	Kyosho Perfix	Futaba Mag. Sport	Futaba Mag.Sport	Kit tested	Kit tested
RTR version available	Yes	Yes	Yes	Yes	No	No
Kit version available	Yes	No	Yes	Yes	Yes	Yes
Street price*	\$240 RTR	\$190 RTR	\$230 RTR	\$185 RTR	\$110	\$110

PERFORMANCE and RATINGS

	Associated RC10T3 RTR	Kyosho Ultima ST	MRC Ironman	MRC MT-10S	Tamiya King Blackfoot	Tamiya Stadium Thunder
Suspension	Excellent	Very good	Very good	Very good	Satisfactory	Good
Durability	Good	Good	Good	Good	Very good	Excellent
Top speed (mph)	18.04	13.49	14.37	15.59	13.33	18.57
Handling	Excellent	Very good	Good	Good	Satisfactory	Very good
Climbing	Good	Good	Very good	Good	Very good	Good
Instructions	Excellent		Good	Good	Excellent	Excellent

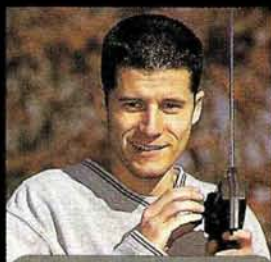
BB = ball bearings, MB = metal bushings, PB = plastic bushings, OPP = one-piece plastic, TB = turnbuckle, TR = threaded rod. *Estimated price; actual price varies with dealer.

EDITORS' PICKS



PETER

I've gotta go with the **Traxxas Stampede** for my pick. It's fast, rolls over anything, looks cool, takes a beating and is a well-put-together RTR package. Speaking of RTR, Associated deserves a lot of credit for the RTR T3. If this were a racetruck shootout, it would win for sure. RTRs are convenient, but I'm a diehard builder at heart. That said, I had a great time assembling the Tamiya Stadium Thunder and Blitzer Beetle; they're fun to put together and a blast to play with. And the Stadium Thunder was the fastest truck tested! But overall best? **Traxxas Stampede**.



GREG

Even though I'm a racer at heart, I gave the **Traxxas Stampede** first place. The truck is just an absolute blast; it's quick, handles exceptionally well for a monster truck and is very durable. I also liked its new look—chrome rims and prepainted body. I don't think this truck will ever get old. As far as the racing-style trucks go, my pick would have to be the Associated T3 RTR. It handles just like the kit T3s and can be upgraded with any T3 hop-ups. Although slow out of the box, the Kyosho Ultima is also a good platform for wannabe racers on a budget; add a decent competition stock motor and an ESC, and it's ready for your first race. And last, I have to mention the Tamiya Wild Willy 2. It's a quick, fun build and an exciting little truck to run. I could easily blow a whole day sitting in a lawn chair, ripping wheelies with the Willy 2.



BOB

I enjoyed building and detailing the Wild Willy 2, and the wheelies made me grin like an idiot every time. I like the "point-and-shoot" handling of the T3, and the Stadium Raider's speed was the best of the bunch. When pressed for a favorite, though, I gotta go with the **Traxxas Stampede**. Jump it; tumble it; whatever. The Stampede combines the qualities of the top trucks and is undeniably rugged, fast and fun—exactly what you want in an everyday player.



DEREK

I agree with Pete and Greg; the Stampede was the best for jumping and thrashing. But the truck I spent the most time with was the oddball of the bunch: the **Tamiya Wild Willy 2**. The little Jeep held my attention for the longest time. I had fun wheeling down jumps and uphill, and I found myself smiling when I tried to get over simple little obstacles without flipping over. That kind of tipsy handling would drive me crazy in a racing or monster truck, but it was an absolute blast with the Willy. It wasn't the fastest or most durable truck of the fleet, but it did remind me of the days before racing when just driving over stuff made me happy.



KEVIN

It isn't the most capable truck here, but after playing with all the trucks, my pick would have to be the **Tamiya King Blackfoot**. Building the truck is half the fun, and it's an element I miss when I run an RTR. I also like its injection-molded "hard" body; it can be painted and detailed like a static model, and if damaged, you can Bondo it up and repaint it! I loved how the Blackfoot's front wheels lifted when I mashed the throttle; wheelies rule. In general, I had more fun with all the high-riding, monster-style trucks than with the stadium machines, and I agree that the Stampede is probably the best of the bunch, but for a guy like me who digs building and likes the finishing possibilities of a "hard" body, the **King Blackfoot** is the best choice.

Tamiya Blitzer Beetle	Tamiya Wild Willy 2	Traxxas Rustler	Traxxas Stampede
10.24 in. (260mm)	6.73 in. (171mm)	11.59 in. (294mm)	10.8 in. (275mm)
11.65 in. (296mm)	10.26 in. (261mm)	12.8 in. (320mm)	10.8 in. (275mm)
67.68 oz. (1918g)	80.48 oz. (2,280g)	67.84 oz. (1922g)	79.3 oz. (2248g)
1.48 in. (38mm)	1.70 in. (44mm)	2.64 in. (67mm)	3.74 in. (95mm)
Bevel gear	Bevel gear	Planetary gear	Planetary gear
Dogbone	Dogbone	Telescoping universal	Telescoping universal
OPP	OPP	OPP	OPP
Plastic	Plastic	Plastic	Plastic
Fluid	Friction	Fluid	Fluid
PB	PB	BB/MB	BB/MB
No	No	Yes	Yes
No	No	Yes	Yes
Mechanical	Mechanical	Electronic	Electronic
Molded color	Molded color	Yes	Yes
540 Stock	540 Stock	Traxxas Stinger	Traxxas Stinger
Kit tested	Kit tested	Traxxas Qualifier	Traxxas Qualifier
No	No	Yes	Yes
Yes	Yes	Yes	Yes
\$110	\$130	\$190 RTR	\$200 RTR
Tamiya Blitzer Beetle	Tamiya Wild Willy 2	Traxxas Rustler	Traxxas Stampede
Good	Satisfactory	Very good	Very good
Very good	Very good	Excellent	Excellent
15.47	10.32	17.22	17.97
Very good	Satisfactory	Very good	Very good
Good	Poor	Good	Very good
Excellent	Excellent	Very good	Very good



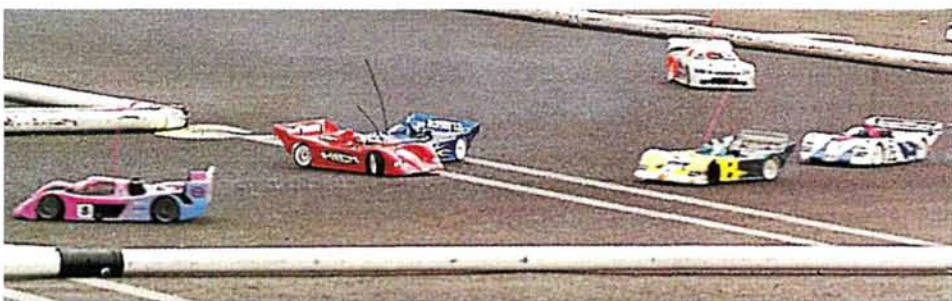
TEST GEAR

- All of the trucks were tested with Orion 2400mAh matched stick packs.
- All of the trucks were tested with their included motors and speed controls.
- RTR trucks were tested with their included radio equipment.
- Kit trucks were tested with Hitec* Lynx Sport transmitters and receivers and Hitec HS3003 servos (included with the Lynx Sport systems).



*Addresses are listed alphabetically in "Featured Manufacturers" on page 225. ■

by Greg Vogel and Derek Buono



HPI World Finals a Huge Success

The World Finals in Irvine, CA—about 5 minutes away from HPI headquarters—wrapped up the HPI Challenge Series. More than 220 entries filled the day with 22 heats of excitement, both nitro and electric. Winners from around the world were flown in to compete in the finals. Spectators lined the track to watch veteran and rookie drivers alike navigate the enormous track. Representatives from more than nine countries raced, and although competition was fierce on the track, the overall vibe around the track was



extremely positive. HPI put on a terrific race, and everyone was a winner; the prizes and giveaways were many and varied. Congratulations to HPI Racing and all who attended. *RC Car Action* will carry full coverage in an upcoming issue, but for now, here is a list of the winners.

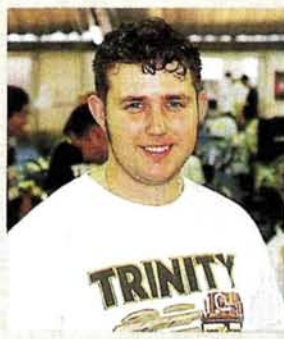
Nitro Stock	Cameron Wagner
Nitro Modified	Tracy Grieger
Super Nitro	Setsuya Kobayashi
Rally	Fraser Low
Mini	Joven Madriaga
Electric Sport	Michael Gebel
Electric Pro	Markus Greter

Billy Easton and David Spashett split the turkey

Cleveland is the site of one of the year's biggest indoor races, and this year was no exception. Billy Easton took the Sedan modified win with his Reedy-powered TC3. David Spashett took the 1/12-scale modified class with his Trinity-powered Switchblade. With well over 300 entries, the Mains went as far as the coveted S-main. The long



wait between rounds was very relaxing, as the results and standings were posted on the hotel's TV system while racers pitted from their rooms. Congratulations to all who participated in this great tradition.



TWO-WHEELER RACING

Electric motorcycle racing: now there's something you don't see at the track every day, but they do it all the time in Salt



Lake City, UT. The track is set up as an oval to keep the action moving at a good pace, and all the racers run Trinity P2K motors and bearings in their Royal/Bachman 1/8-scale bikes. This is one form of racing that looks awesome! Here are the results of the 1/8-scale motorcycle A-main:

- | | |
|------------------|--------------------|
| 1 Robert Kephart | 5 Brandon Saldivar |
| 2 Brent Kolan | 6 Steve Duncan |
| 3 David Mott | 7 Andy Leibman |
| 4 Ron Reid | |

SITE SEEING



WWW.RCDRAGRACING.COM

This site is home to the National Radio Control Hot Rod Association. Those of you who are looking to get into RC drag racing might want to click onto this site to see what the sport is about. You can find contact information here, as well as a list of scheduled drag events. The most important piece of information found here is the organization's rulebook; you can find out which mods are legal to make to your vehicle. Also featured on the site are news updates and postings on race events. If you're looking to go drag racing, this site is a fine guide to the action.

SPEED SHOP

Penguin R/C graphite hop-ups

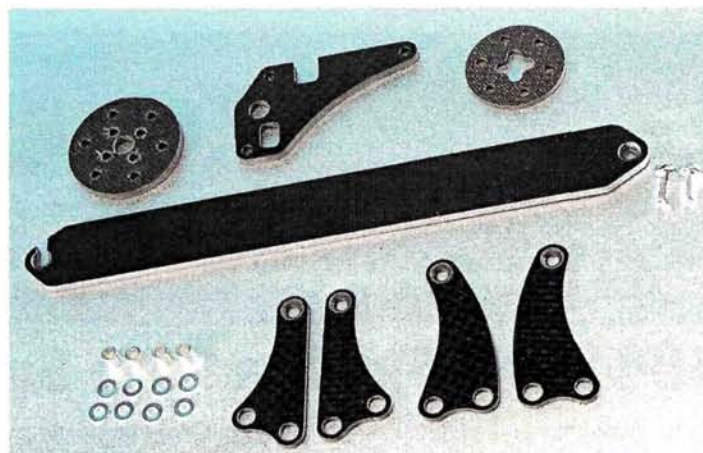
Penguin R/C* specializes in graphite parts for many popular vehicles on the market today. The latest gear includes woven graphite brake discs for the Yokomo GT-4 and the Losi Triple-XNT that should provide improved braking performance. Replace the molded plastic bulkhead brace on the GT-4 with Penguin's graphite piece for extra rigidity. Also available is a set of chassis braces for the Associated TC3; they replace the standard composite braces and include all the necessary hardware for mounting. The quick-release battery bar replaces the stock unit with a one-piece graphite unit that screws down the brace. A slot in one end allows the brace to be pivoted out of the way. Check out Penguin's full line of graphite parts.

Performance brake disc—part nos. P1710 (GT-4)/P4710 (Triple-XNT); \$6.99/\$3.99.

GT-4 bulkhead support brace—P1711, \$6.99.

TC3 chassis brace kit—P5710, \$17.99.

TC3 quick-release battery bar—P5711, \$5.99.



Dynamite turbo plugs

Those hard-to-get turbo plugs should be readily available, now that Dynamite* offers them in two varieties—cold and medium. Both plugs feature platinum elements for long life.

Turbo plugs (cold/medium)—DYN2506/DYN2507; \$6.95.



GS Racing prebuilt Turbo Box

It seems that almost every kit is available as RTR, so it makes sense for starter boxes to follow suit. GS Racing's* Turbo Box is now 90 percent preassembled for fast starts at the track. It's available in three colors (purple, blue and silver) and can handle a 12V power source or two stick packs.

Prebuilt Turbo Box—GSS00020, \$119.95.



Alex Racing personal lap-counting system

Alex Racing* imports this awesome little gadget. Ever wonder what the changes you made to your car did to your lap times but don't want to waste a qualifier to find out? The "Hakarunjer version 3.5" is, to date, the best personal, portable lap-counting system. With a transponder-shaped unit in the car and an infrared sensor, the unit can detect the car from up to 16 feet away in bright sunlight (32 feet indoors). It stores the laps and emits an audible tone to let you know it registered the lap and whether you are hitting the preprogrammed "target" times, and it emits a different tone for the fastest lap. It can be interfaced with a PC for the ultimate tuning reference.

Hakarunjer version 3.5—1000, \$220.



sponsored by
KYOSHO
 THE FINEST RADIO CONTROL MODELS

SPEED SHOP

Hardcore Racing titanium chassis for Factory Team GT

The boys at Hardcore Racing* have the ultimate chassis for all you FTGT lovers out there. Their all-titanium chassis is made from high-grade material and anodized in your choice of blue, purple, or green. They also offer titanium front and rear shock towers in matching colors.

Titanium chassis—HRC-00200, \$125.

Titanium shock towers (F/R)—

HRC-00201/HRC-00202; \$35/\$40.

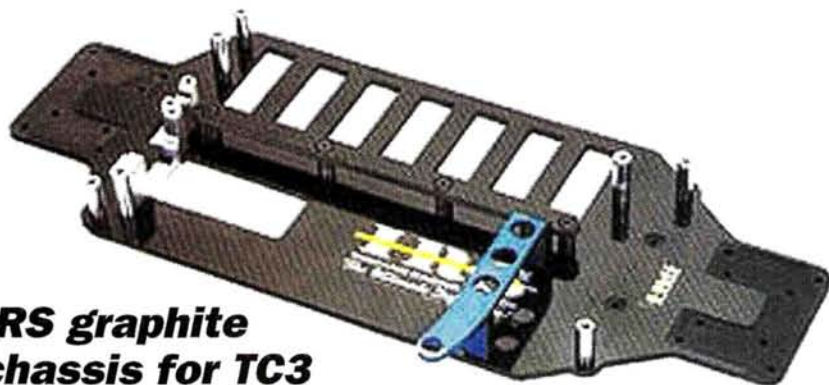


IRS graphite chassis for TC3

Irrgang Racing Service* (IRS)'s graphite conversion kit includes all the components to convert the molded stock chassis to a woven graphite plate. The extra-thick graphite chassis has recesses to drop the bulkhead and steering lower in the chassis to maintain the stock geometry. The one-piece servo/transponder mount replaces the stock plastic mounts and the Lexan holder with a trick aluminum mount.

Graphite chassis conversion—IRS150, \$179.95.

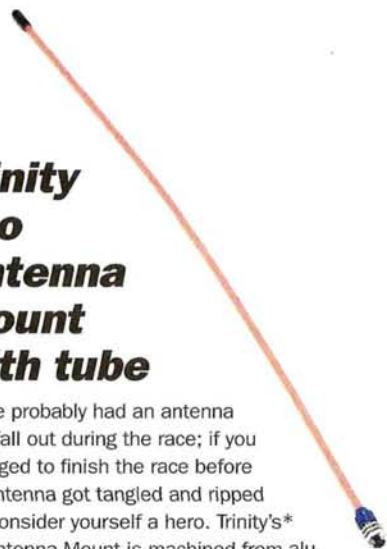
Aluminum servo/transponder mount—IRS148, \$27.50.



Trinity Pro Antenna Mount with tube

You've probably had an antenna tube fall out during the race; if you managed to finish the race before the antenna got tangled and ripped out, consider yourself a hero. Trinity's* Pro Antenna Mount is machined from aluminum and actually grips the antenna tube to prevent it from getting knocked out of the mount.

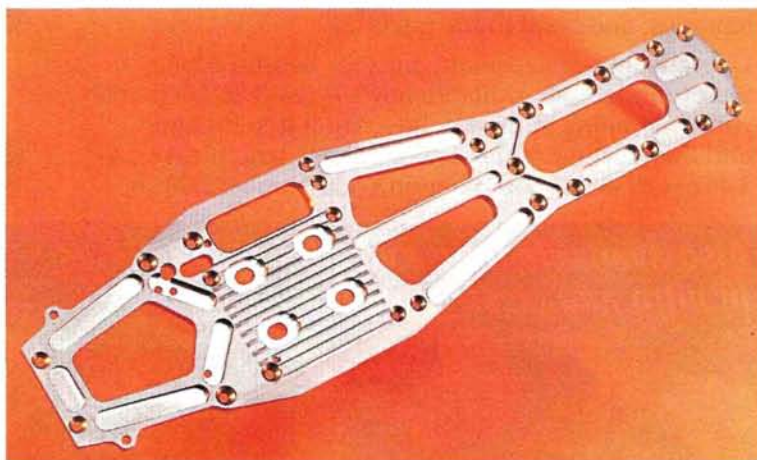
Pro Antenna mount—RC2020, \$5.99.



Wolf Pack aluminum chassis for Yokomo GT-4

One of the newest parts from the Wolf Pack Radicals* mill is an awesome aluminum chassis for the GT-4. It's milled from stiff T6061 aluminum and is a beefy 4.75mm thick. The chassis features beveled sides and a rear clip for added clearance in hard cornering and acceleration. This helps prevent the chassis from scraping and scrubbing speed. Machined recesses help lighten the chassis, which weighs 136g (4.725 oz.).

GT-4 aluminum chassis—RC1020, \$12.99.



5 QUESTIONS

Age: 26

Last big win: 2000
ROAR Truck Nationals

Home track: Capitol RC,
Sacramento, CA

Sponsors: Team Losi,
Trinity, LRP, Airtronics, MIP,
Lunsford, Competition
Electronics

When I'm not racing:
I go snowboarding



Matt Francis

Radio Control Car Action: We heard you have a sweet full-size car. Care to tell us about it?
Matt Francis: There is a story behind my beautiful 1986 Subaru wagon. A few years ago, I attracted too much attention with my VW Corrado. It seems the local authorities took a liking to it, too, so I sold both my car and my truck and picked up this fine automobile, and I haven't gotten a ticket yet. Go figure.

RCRA: What is your role as a sponsored driver? Some drivers don't give racers the time of day; what is your view on sponsored drivers' etiquette?
MF: I will help out anybody at the track who has a problem. When it comes time for them to buy their next product, I want them to remember me and the companies that sponsor me. If I help somebody and they don't buy a product that I recommend, I don't feel I did my job representing that company. That's what I feel a sponsored driver's duties are. You are being paid to represent and sell products in a particular area. I think sometimes people lose sight of that.

RCRA: Do you think off-road racing is more forgiving than on-road?
MF: Off-road is definitely more forgiving; on-road is a more precise form of racing. In off-road, you can have a bad setup and still get around the track rather quickly. In on-road, if your settings are off slightly, you can spin out in the turns. If you brush the boards, you have to re-tweak your car. In off-road, I can cartwheel down the straight and keep going. Off-road offers an ever-changing environment that drivers have to adapt to. Ruts form; bumps and jumps change during every lap and qualifier. That presents a great challenge and keeps off-road racing fresh.

RCRA: It's no secret that you don't race on-road. Why hasn't a talented driver like you crossed over into all the RC arenas?
MF: I have dedicated most of my time and focus to school and off-road; you could call it my specialty. If I were to attack the on-road scene, I would have to dedicate months of practice and testing time to getting up to speed because I don't show up just to race, I show up to win—nothing else will satisfy me. I'm already on the road more than half the year; what am I paying rent for?

UNDER THE HOOD

MATT FRANCIS'S
STANDARD SETUP



Matt replaced the rear suspension mounts with a set of Trinity's aluminum mounts to reduce the chances of breakage during those extra-long A-mains he's so used to being in.



The modified throttle-return spring ensures that the throttle will return to idle if anything goes wrong.



FACTORY OPTIONS

- Trinity aluminum rear suspension mounts—TK5056 ■ Trinity aluminum front bulkhead—TK5009 ■ Trinity aluminum servo mounts—TK5017
- Graphite rear arms—A-9850 ■ Threaded shock bodies—A-5055/A-5056

SETUP

	FRONT	REAR
Toe-in (inside/outside)	Zero	3°/2°
Ride height	Arms level	Bones level
Camber	-1°	-1/2°
Camber-rod location		
—hub	B	A
—bulkhead	3 (1 washer under ball stud)	2
Caster	Stock	—
Spindle height	Bottom	—
Rear hub spacing	—	Center
Steering-servo position	Back	—
Swaybar	No	No
Ackerman location	Outside (2 washers on spindle)	
Shocks		
—fluid	30WT	40WT
—piston	No. 56	No. 54
—springs	Buggy green	Pink
—limiters	B (inside)	Shock end unscrewed 3 turns
Mounting locations (upper/lower)	No. 2 inside/4 outside	
Engine	Picco	
Fuel	Trinity Team Blend 20%	
Glow plug	Picco	
Engine temp.	200 to 220°	
Head clearance	1 shim	
Muffler	Stock	
Manifold	Stock	
Spur/clutch bell	19/54	

Matt modified the receiver box by adding a transmission plug from the Double-X4 for easier access to the crystal. He also added the hole for the antenna wire. He used caulk to seal the box more tightly to prevent fuel and dirt from getting inside the receiver.

MODIFICATIONS

Matt made only a few modifications to the Triple-XNT—most noticeably, to the receiver box. He drilled a hole for the antenna and used a Double-X4 transmission plug to make an access port for the receiver crystal. Matt also used some caulking to better fuelproof the receiver. He relocated the throttle return spring from the stock position to directly on the carb. This setup ensures that if a signal is lost or something happens to the linkage, the throttle will return to idle.

EQUIPMENT

- RADIO:** Airtronics M8
- SERVO:** (steering/throttle) Airtronics 94358/94737
- RECEIVER:** LRP* Phaser
- ENGINE:** Trinity Monster Horsepower Picco .12
- FUEL:** Trinity Picco blend 20%
- RECEIVER PACK:** Trinity Nitro Metal Hydride 5-cell 1100mAh hump pack
- TIRES:** (F/R) Losi* Directional (silver)/Losi Reptile (red)



HOT MOD HOW TO

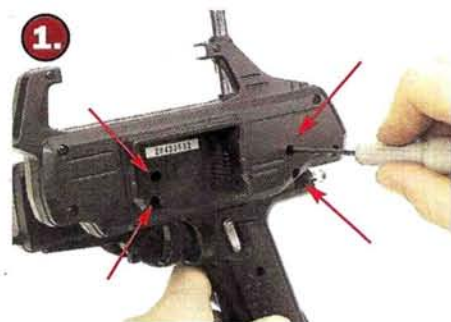
AIRTRONICS M8 FOR LEFTIES

YOU'LL NEED

■ Phillips screwdriver.

It has been an option on Airtronics* radios since the 3P days—the left-handed option, that is. Few radios cater to left-handed drivers (we have all seen lefties holding the radio in some weird yoga grips). Well, the M8 can be switched to left-handed use; here's how:

■ STEP 1. Make sure the transmitter is off, and remove the module. Locate the four screws on the back side of the radio (marked with arrows in the photos). Remove the four screws, and put them to the side where they can't be lost.



■ STEP 2. Gently pull apart the base and the head of the radio. If it feels like it doesn't want to come free, carefully rock the head from side to side. You do not want to use too much force because there are wires attached on the inside, and if you pull too hard, they could rip out of the circuit board (and that would be a bad thing).



■ STEP 4. Reinstall the four self-tapping screws, and you'll be good to go.

I hope all you lefties paid attention; now you can stop driving with your radios upside-down, backwards and inside-out. All you righties out there should give this a try so you can see what lefties have to deal with living in a right-handed world.

*Addresses are listed alphabetically in "Featured Manufacturers" on page 225. ■

LAST LAP

You're in second place when you and the leader tangle with lapped traffic. The marshal puts you back on the track first. Do you take the lead or give the leader his position back?

I would hit the throttle as soon as the tires touched solid ground. The leader was in first place because he/she is a good—or lucky—driver. If he is truly better (or luckier) than you, he'll overtake you again. Of course, it isn't really if you win or lose a race, it's if you have fun. But who wouldn't have fun coming in first? Take any good luck that fate offers, 'cause next time, it will be you who gets put down second.

—Jesse Alward

If the race has been clean, give up your position. You know what they say: "What goes around, comes around!"

—Corwyn Friesen

If I caused the tangle by being too aggressive, then certainly, give the leader back his position. If, however, he caused the tangle in an attempt to keep me from passing cleanly, then move on to the checkers!

—Will Fulmer

I would let him have the lead back. I believe in fighting for first, not taking it unfairly. I don't care what people say; when you win, you should win fairly.

—Pat Foley

If you take the lead only because a marshal puts you there, and you know it, you are a poor sportsman. How would you feel if it happened to you? A fair driver would wait for the other driver to catch up. I would even let him pass. Only losers take the lead unfairly.

—Dave Elzinga

It all depends. Was I gaining on the leader? When the leader crashed, did that cause my wreck? How much do I like this guy? And most important, what does the trophy girl look like?

—A.J. Pantano

NEXT MONTH'S QUESTION

If you could win any race in the world, which one would it be, and why?

Respond by clicking "Last Lap" at www.rccaraction.com, or email your responses to gregv@alrags.com.



by Greg Vogel

Las Vegas, Nevada—the land of high-stakes gambling, spectacular lights and boxing matches—was also home to the 2000/2001 IFMAR 1/8 Off-Road World Championships. Drivers from all over the world, including the U.S., Japan, Germany, France and Spain, gathered to duke it out. This race also had the potential to be a milestone for Kyosho*—an opportunity to score a record fifth consecutive IFMAR World Championship with an Inferno MP variant. With a worldwide field of entirely new vehicles from every prominent 1/8 buggy manufacturer, it was one of Kyosho's greatest challenges ever—and a challenge for all the other drivers, too.

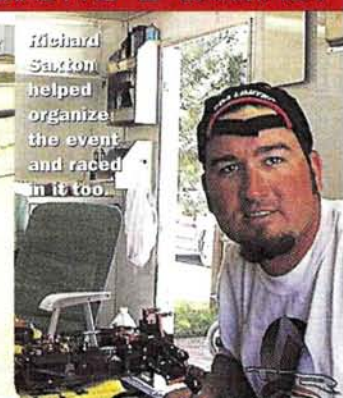
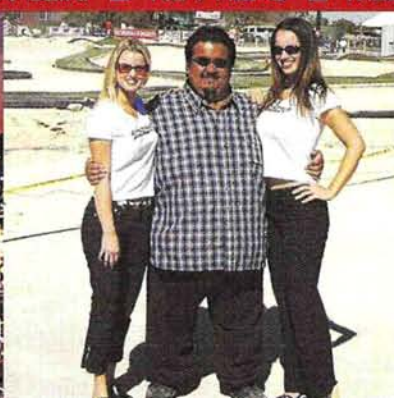
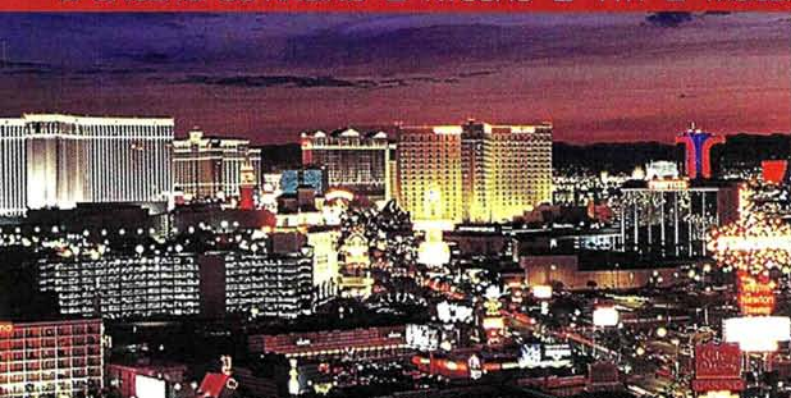
Kanai kicks with Kyosho MP 7.5 that he designed



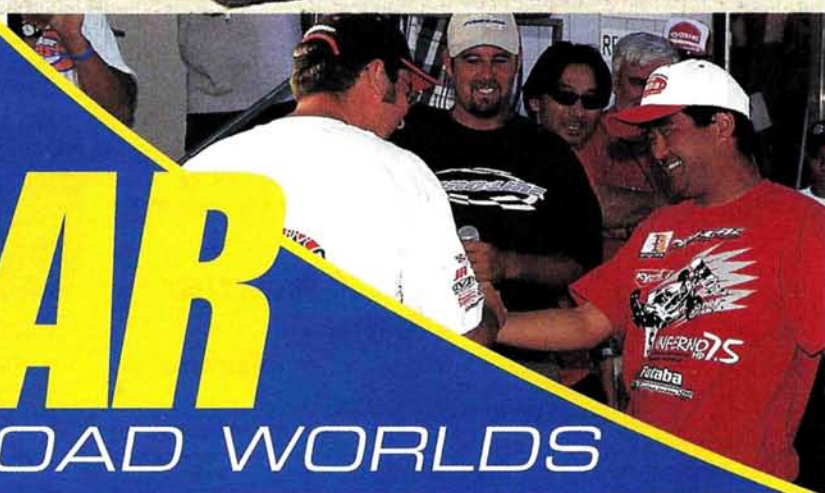
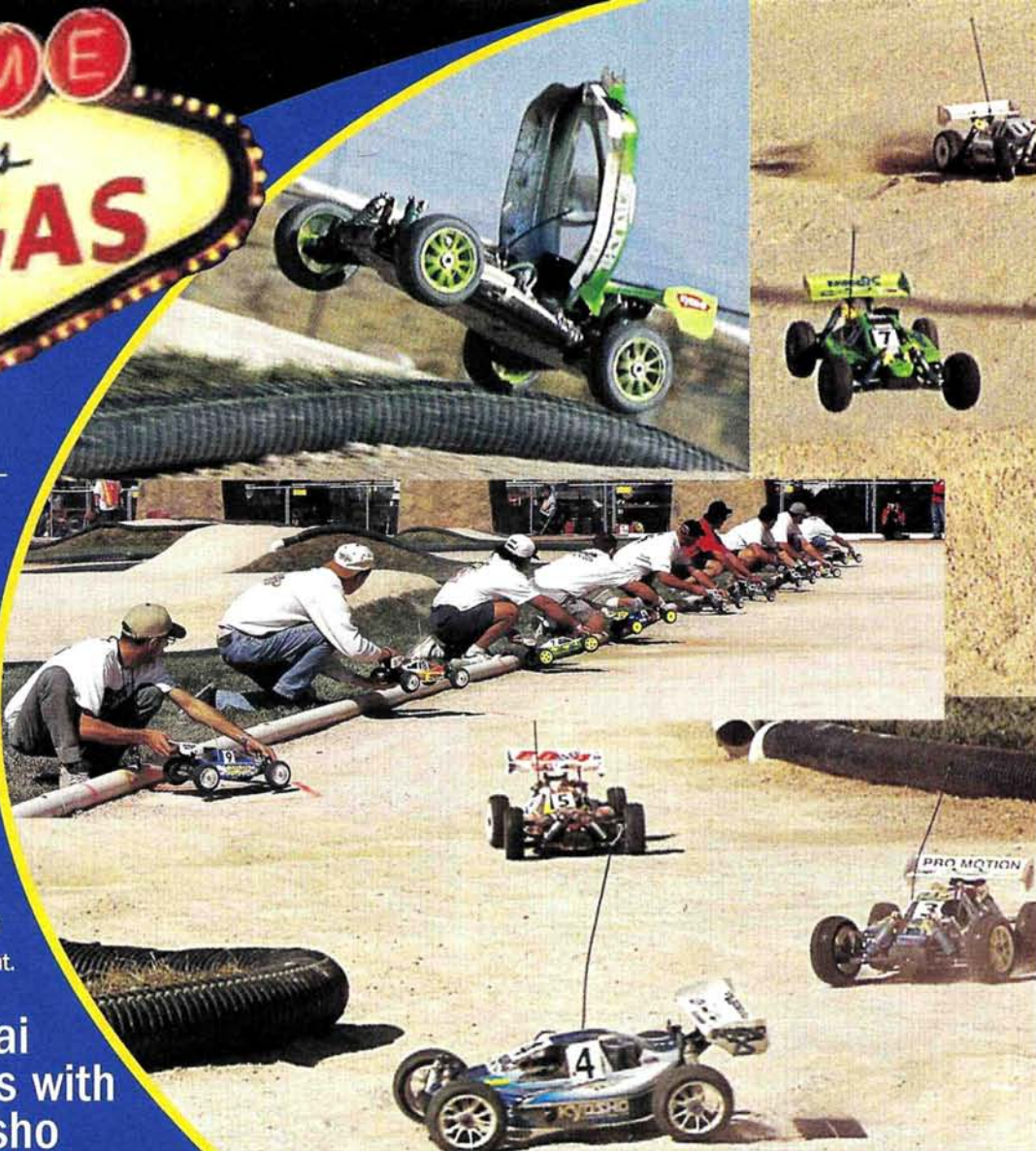
IFMAR

1/8 OFF-ROAD WORLDS

SPONSERS: GS RACING ■ KYOSHO ■ TTR ■ MUGEN SEIKI ■ KO PROPO ■ MEDIAL PRO ■ CHAMPION

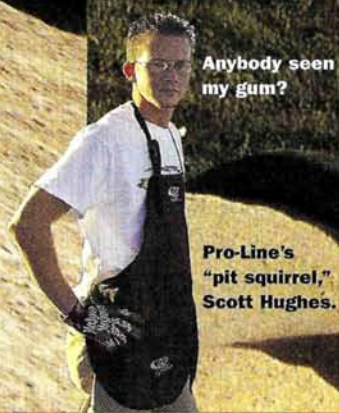


Michael Saxton helped organize the event and raced in it too.





LADY LUCK



Anybody seen my gum?

Pro-Line's "pit squirrel," Scott Hughes.



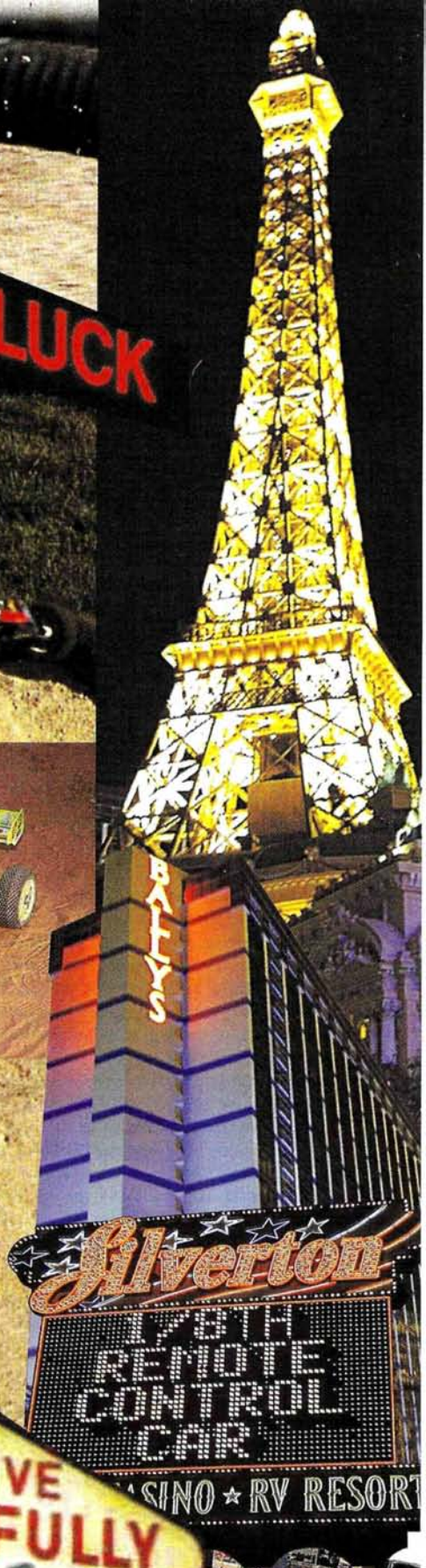
Steve Harwell of Smash Mouth stopped by to check out the action.



.....Yuichi Kanai's..... Winning Kyosho 7.5

This guy is not just a talented driver who won the 1/8 Worlds; he's also a master designer with the Kyosho Inferno MP 7.5 and other vehicles to his credit. Since he won with the car he designed, his victory was very special.

I took this shot of his winning car just minutes after the race; believe it or not, it's close to being stock.



■ NOVA ROSSI ■ ELLEGI ■ POWERS TYRES



QUALIFYING

Drivers ran four rounds of controlled practice with transponders in their cars. The transponders "tracked" performance during these rounds, and the results were used to "seed" the qualifiers. This was a fair way to group drivers of similar skill levels in the same qualifier.

At the end of the second practice day, heat assignments were handed out, but before the morning sun rose over the Vegas track, a computer problem had forced a re-sorting of the qualifying heats. It came as a big surprise to some racers who hadn't

anticipated having to run the first qualifier right away, but race officials made every effort to give everyone time to prepare.

In the Qualifiers, all eyes were on Mark Pavidis, who won four of the six heats. Mark broke in round five and scored a third in round six, but the last two runs weren't factored in the "best four of six" scoring. This dominating performance put him on the pole for the A-main, and that's the only guaranteed spot for the A-final.

Many of the European and Japanese drivers had a difficult time negotiating the American-style track. They are used to run-

ning on relatively flat grassy tracks, and many found the site's hard-packed dirt and huge jumps a real challenge.

THE MAIN EVENT

About 10 minutes before the start of the warm-up for the main event, the staging tables were filled with the top 10 drivers' buggies, and their pit crews were ready. The cars idled on the starter boxes, each being given a blip of throttle every minute to get its engine "cleaned out" and up to optimum temperature.

Top qualifier Pavidis was on the pole, and that's who most spectators watched. The pitmen held the cars in a row (1 through 10), and engines revved as they waited for the signal to drop them onto the grid. The countdown was started, and on the count of three, the cars were set down. The only sounds were of the idling cars, but at the tone, there was a roar as the cars took off toward the first turn. They were so bunched and there was such a cloud of dust that it was nearly impossible to see who came out of the corner in front. But as they came down the track, we saw Pavidis in the lead, with Jeremy Kortz behind him and Daniel Reckward, the defending IFMAR champ in the third spot. As they crossed the line for the first lap, it was Pavidis and Kortz, and Miguel Matias had moved into the third. Then Kortz took the lead, but then he stuffed it into a pipe, and



THE RACE TO THE MAIN

At the end of qualifying, all the drivers except the TQs were seeded into one of two tiers of finals. For American drivers who are used to a "ladder" in which all the racers compete in Mains, starting with the A-main at the top level and working downward alphabetically, the IFMAR structure is unusual. IFMAR has A-mains and B-mains, but they're numbered as fractions, starting with the 1/2 A and 1/2 B, followed by the 1/4 A and 1/4 B, 1/8 A and B, 1/16 A and B, and so on down to the 1/2048 A and B.

To illustrate: Mark was already TQ and in the Main; second was Jeremy Kortz, who was put into the first position of the 1/2 A; third was Miguel Matias, who was assigned the first position of the 1/2 B; Daniel Reckward had the fourth best, so he was in the 1/2 A, and the placement went in that order.

The numbering can be confusing, but the result is two "ladders" instead of one, and there's a good reason for this. Nitro racing generally allows bump-ups in the Mains, e.g., the top three finishers in each Main move up to the next Main. Having two tiers allows the top three finishers in a given Main enough time to prepare their cars for the next one because a race from the other "ladder" is run between the Mains in their own. A standard one-tier system requires an almost impossibly quick turn-around to be ready for the next Main. Each final has seven racers, and eighth, ninth and 10th are left open for drivers bumped up from the lower Mains.

Many drivers were bumped up several "rungs"; most notable among these was Marc Ibars from Spain driving a Crono Expert Team buggy. After qualifying 63rd, he started in the 1/32 A final, which he finished first; he was bumped up into the 1/16 A, which he also won. After taking second in the 1/8 A, he moved up into the 1/4 A, in which he again finished second. Next for him came the 1/2 A, which brought him home in fifth—a precarious spot because only one fifth-place finisher from the 1/2 A or 1/2 B gets to go to the A-Final. Ibars had a quicker track time than Yuni Furuta, who finished fifth in the 1/2 B, so Ibars was moved up.



Jason Ashton attended college classes between heats and managed to make the A-Main.

PIT RACERS

GET A BUNCH OF GUYS TOGETHER, pump them up for one of the world's biggest races, and all they want to do is compete—even off the track. We caught Mark Pavidis, Barry Baker and Scott "The Squirrel" Hughes racing a Honda Z-50 around one of the "islands" in a back parking lot to see who could clock the fastest lap. They pushed the bike to its limits, but the so-designated "7-pound Squirrel" took the win with a 33-second time that left Barry and Mark 5 seconds behind.

Pavidis thought he was going to lay the smack down on the other two, but he forgot there was an extra gear on the bike, and, unlike them, he couldn't get up to speed—rookie!



Barry Baker takes his turn at the handlebars. Always a racer, he wanted a few practice laps before he was timed.



Hughes waits for the "Go!" This lightweight clearly had an advantage, but to win, he still had to push the bike to the max. On one of his trial runs, he almost plowed into a parked truck, and another stunt almost put him into a brick wall (crazy Squirrel!).



Pavidis and Kortz battled hard but gave each other enough room to avoid crashing. Matias pulled in for fuel, and Kanai reclaimed the lead but he still had to pit during the next lap, so Matias had the lead again. While this was happening, with 18 minutes to go, all attention was focused one side of the track where Jeremy Kortz's ailing MP 7.5 was limping after breaking a front-suspension arm when he came off one of the jumps out of shape. Kortz had driven an awesome race, but he definitely needed to pit for repairs, and that would put him several laps behind the leaders.

Kanai tussled with a few boards, and that allowed Pavidis to gain ground; he was clocking some great, 44-second lap times, whereas Kanai's best were 50 seconds.

With 6 minutes to go, the Kanai and Pavidis crews were getting ready for the final pit stop. Kanai was in and out, but Pavidis decided to take another lap, and with 4 minutes, 30 seconds left, it happened: a rear suspension arm let go on his 7.5, but not all the way; it had a massive toe-out angle, but he wasn't about to give up. He did all he could to keep his car going straight so that he would at least be able to walk home with a podium position. But after a few laps, the broken arm and the rear wheel's dramatic angle became too much even for this pro to handle, and he pulled his car off the track with about 2½ minutes to go.

With a little over a minute to go, Kanai had a two-lap lead over Reckward. Matias had to pit with a broken shock but was soon back out with little time lost, and was in third with Degani in fourth. Kortz was also back on the track, but with a minute left, he tried to sky the trips, and the crowd went crazy.

Then with less a minute on the clock, announcer Barry Baker said that when Kanai next crossed the line, he would be the world champion, and with 30 seconds to go, we had a world champion. Kanai finished his last lap as the clock ran out, and the crowd went nuts. Reckward rolled across the line in second and Matias took third.

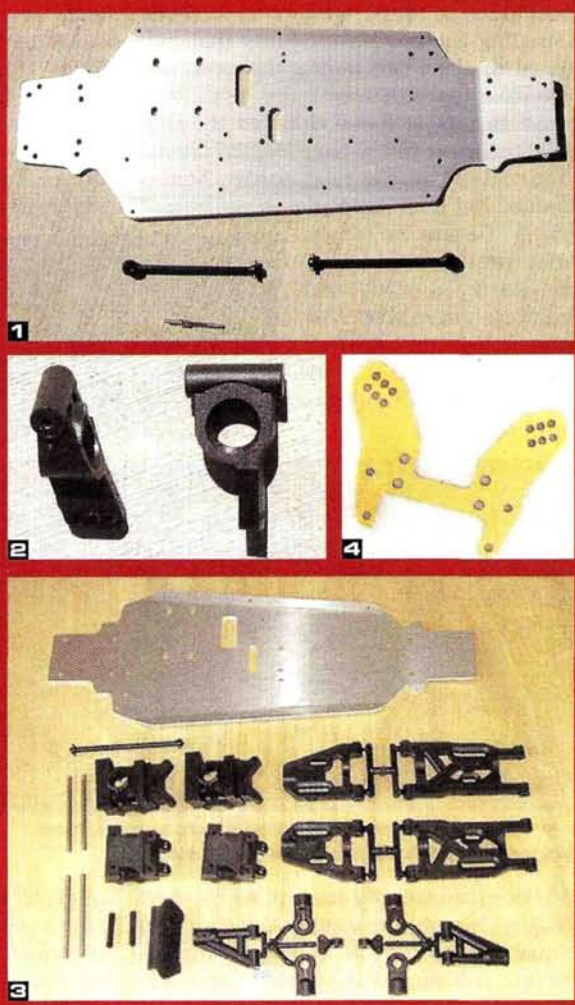
NEW IN THE PITS

While making several rounds of the pits, I didn't notice anything off-the-wall new. Not until I walked into the manufacturers' trailers did I find out which new products team drivers were using.

In the Mugen* camp, Kris Moore let me take a peek at a new chassis (1) that he had on his buggy. This chassis kit has the engine farther back and includes new dogbones, too. During practice, Kris's car looked more stable with this new chassis than it had in previous rounds. The chassis will be standard on the new MBX-XR kit, as will other new parts such as the new rear hub carriers (2) that are shown here.

TTR* also has a new chassis conversion kit(3), but it comes with a lot more. Again the engine is farther back, but this kit comes with new bulkheads and suspension components. Best of all is that it isn't expensive.

Kyosho's new parts included a front shock tower (4), lower suspension-pin plates and a drag-link plate. Some of Kyosho's drivers ran new diffs, but they didn't let me see them.



THE WRAP-UP

Seeing the world's best 1/8 off-road buggy drivers compete is awe-inspiring. From the wrenching in the pits to the joking on the bleachers to the hard-core all-out racing strategies, even though there was a title on the line, these guys are all about having fun.

The site arranged by Richard Saxton, Jim McKenna and others was top-notch and I

don't see how it could have been any better. There were a few minor glitches, but overall, the program ran well.

I thank contributing author Stephen Bess for helping me gather information at the race, and I congratulate Mark Pavidis for TQ'ing and Yuichi Kanai for becoming the 2000/2001 IFMAR 1/8 Off-Road World Champion.

WINNERS

1/8 BUGGY

FIN.	QUAL.	DRIVER	COUNTRY	VEHICLE	ENGINE	PIPE	TRANSMITTER	FUEL	TIRES
1	4	Yuichi Kanai	Japan	Kyosho	RB	RB 9863	Airtronics	Kyosho	Pro-Line
2	5	Daniel Reckward	Germany	Kyosho	RB Concept	RB 9863	KO Propo	RB Concept	Ellegi
3	3	Miguel Matias	Portugal	Kyosho	O.S.	Nova 9853	Futaba	Cosmo R/C	Ellegi
4	1	Mark Pavidis	USA	Kyosho	O'Donnell/ RB	Nova 9853	Airtronics	O'Donnell	Pro-Line
5	6	Greg Degani	USA	Kyosho	O.S.	Kyosho 35	Futaba	O'Donnell	Pro-Line
6	7	Derek Furutani	USA	Kyosho	O.S.	Kyosho 35	Airtronics	Trinity	Pro-Line
7	10	Marc Ibars	Spain	Crono	Nova/Crono	Nova 9853	Sanwa	Ultimate Racing	Ellegi
8	2	Jeremy Kortz	USA	Kyosho	JP	JP	JR	Byron	Pro-Line
9	8	Jason Ashton	USA	Kyosho	O.S.	Picco 069	-	O'Donnell	Pro-Line
10	9	Marco Grandesso	Italy	TTR	NovaRossi	Nova 9853	Sanwa	Nova	Champion

*Addresses are listed alphabetically in "Featured Manufacturers" on page 225. ■

Four Fast Finishes

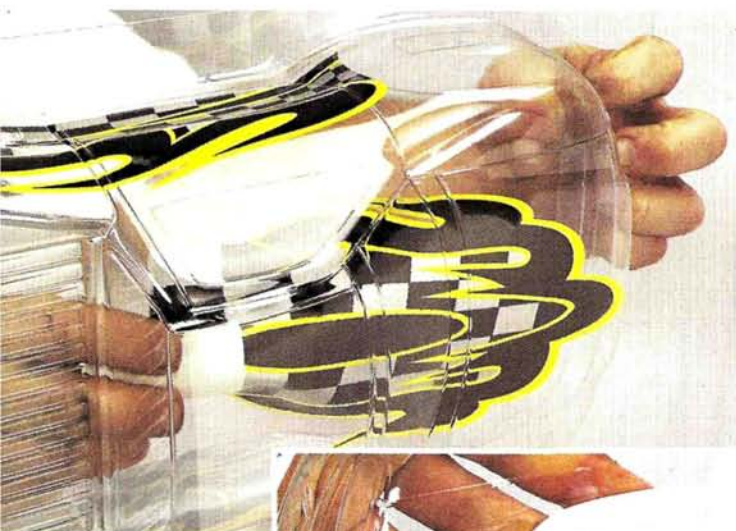
Easy paint jobs for all cars

by Bob Hastings

Sure; you want your RC car to look good, but you also want to drive it sometime this century. Here are four painting methods that will leave your car clothed in color in just an hour or so with only minor masking—if any!



Team Orion offers a variety of pre-painted HPI bodies in various colors and graphic styles. This Alfa Romeo required only a few detail stickers to finish it off; add a good-looking set of rims, such as these Hobby-Tech® Speedsters, and you're all set.



Top: I use a small piece of the sticker's protective backing to help align the graphic and also to keep my fingerprints off the facing side. **Bottom:** a credit card or any stiff plastic card makes an excellent squeegee to finish applying the sticker and work out any air bubbles. After I positioned the sticker, I applied the window mask and shot this Pro-Line® body with 2 coats of Pactra's® White spray.

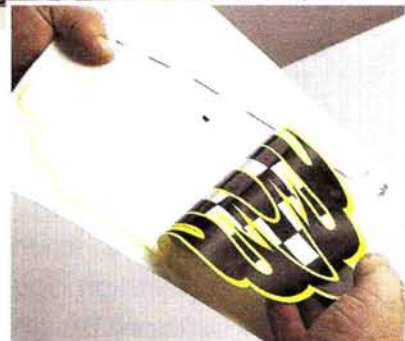


Not bad for a simple white paint job. This Pro-Line Stampede body looks even hotter with Team Orion's Main Event sticker.



Method 1: Cheat.

Stick on some Orion® decals and shoot the body one color. OK; so that's not much of a tip, but it's an easy way to put together a good-looking body. The sets shown above, left to right, are Spitfire, Speed Streaks, Main Event and Light Speed, and they're easy to apply. You can also get prefinished bodies from Orion (they're HPI® shells) with the inside-out decals.



Top: add one of these Team Orion Thunder Design graphics to spice up your next paint job. The stickers come in four designs, and each design is available in a different color scheme. **Bottom:** the Orion graphics are printed on the adhesive side; just peel them away from the backing and apply to the inside of your RC body.





The perimeter fade is very simple to do. I masked the windows and hit only the edges of this Protoform Accord with a few very light coats of Pactra's Fluorescent Orange spray. Only about half an inch of the bottom is actually opaque. I sprayed a white Protoform molded wing orange to match the body.

Method 2: Perimeter fade.

This one's super-easy. Just spray the darker color around the perimeter of the body, then spray the lighter color over it. If you're spraying fluorescent or metallic colors, apply a backing color (usually white for solid colors or silver for metallic and candies) over the main colors. This technique works very well with fluorescents, such as orange and yellow, which always blend beautifully (as seen on this Protoform* Accord). Other good choices include red and yellow, metallic or candy blue and silver, or black and blue.

Complete the look by spraying the rest of the body with Pactra's Fluorescent Racing Yellow, followed by Overcoat Fluorescent White after the yellow has dried. Trim the shell, add the body decals, and you're finished.

Method 3: The half-and-half.

This technique requires a little more time since it involves more colors and some masking, but it's still very easy to do. The key to the simplicity of the half-and-half is the masking; the tape only passes over broad areas of the door and roof panels and avoids tricky compound curves. For a speedier look, always angle the "break" line; never put it smack-dab in the middle of the fender wells. If you do, the vertical break line becomes a visual "wall" that stops the eye, and its placement in the car's middle will likely make it look like two cars that were cut in half and welded together as one. A contrasting, tape-on pinstripe covers the break and gives the body a finished look. For a more interesting design with just a little extra effort, try fading from the break line using the same overspray technique used for the "perimeter fade" effect.



Top left: I first ran a 1/4-inch silver pinstripe from the top of the C-pillar straight to the back of the front wheel well. Once the nose was masked off to the pinstripe, I applied fluorescent green and then fluorescent yellow in the same manner as with the perimeter fade. **Bottom left:** after removing the masking tape from the HPI Peugeot 406, I coated the inside with Pactra's Sprint White. With the stock decals and a set of Hobby-Tech* Twisted Turner wheels, this ride is ready for action.

General painting tips

- Before you apply paint or masking, clean the body with warm water and dish soap, rinse thoroughly and dry with a lint-free cloth. Avoid touching the inside of the body, and wash your hands thoroughly beforehand, so you don't leave oily fingerprints in the body if you do touch it.
- Work in a well-ventilated area, away from heaters, open flame, etc. The best painting spot is in the backyard!
- Wear a filter mask when you paint. If you're working outside, position yourself so that the paint won't be blown back toward you as you work.
- Have patience! Let each coat dry completely before applying the next. The biggest test of your willpower comes when the last color has been shot. Be strong, and leave those window masks on until you know everything is dry!

Method 4: Just one color.

The key to a killer one-color finish is picking the right body; find one that includes a loaded decal sheet with window moldings, logos, grills, scoops, graphics, etc. This HPI Ram-Air Firebird is an excellent example; here, you see just a coat of red with the included decals. If you go the one-color route, choose a color that will make the decals "pop." Black is usually not a good color, because it makes window trim and many detail decals disappear. White is always good, but a little bland. Reds, yellows and metallics are usually winners.

Some cars have such nice lines that they actually look better with just one color and the stock decals. This HPI Trans Am is finished with a few coats of Pactra's Racing Red, Hobby-Tech's 200S rims and matching Goodyear Eagle slicks.



*Addresses are listed alphabetically in "Featured Manufacturers" on page 225. ■

Help that look last!

Here are some tips to keep your car's body lookin' good. It takes only a few extra minutes to add weeks to your body's life span.

- Don't use bare body clips to support the shell. Some guys like to slip a nylon washer over the body post before mounting the body; some like to apply stick-on foam donuts to the body holes, and some simply put a layer of vinyl tape around the holes in the body. All these methods work well.
- Apply tape to high-wear areas. Look for any areas where the body touches the chassis or chassis parts, and apply a layer of vinyl tape over those areas. You don't want your car to come off the track with "bald spots."
- Touring car bodies tend to crack around the top of the front fender wells, and off-road cars usually have their own trouble spots, depending on the model. Smear a little Shoe-Goo (if your shop doesn't carry it, get it at sporting goods stores) over the most-likely-to-crack areas.
- If you've got a touring car, cut the bumper to fit the nose of the body as closely as possible; the less room allowed for flexing, the less damage-prone the body will be.

BY KEVIN
HETMANSKI

NR/CTPA Worlds

The annual National Radio Controlled Truck Pulling Association (NR/CTPA) World Championship was held in October 2000, in Montpelier, OH, and once again, it was an incredible gathering for RC truck fans. This national event saw 320 entrants competing in classes from Garden Tractor Pullers to Open Monster Truck racing. Contributing author Kevin Holmlund filed this report from the event.

CONCOURS

Have you ever seen the Pink Panther driving a tractor with five V-8 engines or a Clod Buster with a functioning snow plow and sand

it look good must stay on during the competition. Each registered competitor receives a ballot to vote in the three categories. The most coveted awards are the President's



Above left: Dave Pack, 1999's President's Award winner, won again in 2000; he also took third in Concours with the truck that smacked the wall. **His other Replica truck took first in Concours.** **Right:** Delbert Humes' Pink Panther took first in Concours, Best Design, Best Paint and first in the 2WD Sportsman Pulling class on dirt.

spreader? This is the type of creativity displayed at the Worlds. Award categories included Best of Show, Best Design and Best Paint. The catch here is you have to pull or race what you show, and whatever you put on your truck to make

Award for Most Realistic Monster Truck and the President's Award for Pulling Truck. These trophies are big ones! The President's Award for monster truck racing went to Dave Pack and his OverKill monster truck; Mike Gross took it home on



Looking at these monster trucks, you might think you were at a Pace Motorsports event. Check out this sweet Goldberg vehicle—just one example of the new monster truck bodies offered by Parma*.

the pulling side for his Kodiak puller.

PULLING

A total of 109 trucks was entered in 15 pulling classes, and talk about scale realism; these tractors had features such as smoking exhaust stacks, drivers that held drive sticks and full instrumentation. If it hadn't been for the tractors' size and the dudes unhooking them at the end of the pull, you would think these things were real.

We saw several double pull-offs; that's when more than one truck in a class makes a full pull, so more weight is added, and they pull again until a winner is decided. In the 2WD Open II, "The Big Class," 555 pounds was strapped to the sled and pulled over 28 feet on carpet. Last year, one of these trucks pulled a full-size Chevy S10 Pickup several feet before the hitch broke. Two dirt tracks were brought in for the dirt pullers this year because of the growing popularity of the class. Birdog took

home the win in the popular Dirt Digger class by pulling a 13-pound sled a distance of 27 feet, 8¾ inches.

LONG JUMP

The Long Jump competition was a big hit this year. More than 30 trucks lined up to do some high flying. The rules are simple: land on your tires, and keep the shiny side up. If you roll or crash, it's a DQ. Brad Pitt took home first place in the 2WD class with a distance of 13 feet, 1 inch, and Dan Wyatt won the 4WD class with a jump of 18 feet, 10 inches.

MONSTER TRUCK RACING

This time saw more monster truck entries than ever—149. The monster truckers were able to test their trucks on the racing surface on Friday night so that they could do some last-minute tuning before racing started on Saturday. Several racers, including President's Award winner, Dave Pack, took advantage of the open

BASIC RULES

Truck pulling takes place on carpet or on dirt. Each class starts with a certain weight that must be pulled. Once the sled starts moving, a timer is started. If the sled is pulled off the track, the length of the pull is measured to that point. If the vehicle stops pulling for any reason, then the length of the pull is taken from the point at which it stopped. If the sled is moving slowly and does not reach the full-pull mark before the allowed time expires, the measurement is taken at the point at which the vehicle was when the time elapsed.

Of course, if your truck is strong enough to make a full pull to the end of the course within the time limit, then you advance to the next round where more weight is added to the sled. The truck that pulls the most weight the farthest distance is the winner.

The monster truck racing classes are also timed events. The trucks run over an obstacle course that features jumps, turns and crushed RC cars. Cones are set up around the course, and if one of these cones is knocked over by a vehicle, a second is added to its driver's time. In addition, a truck must touch the jumps and the crushed cars with at least two of its tires. If you miss these obstacles altogether, more time is added to your total time. The truck with the fastest time is the winner. A rule book is available for both truck pulling and monster-truck racing through the NR/CTPA.

This beautiful green machine is modeled after a full-size pulling tractor. If you look closely, you'll see the smoke coming out of the stack in the front of the tractor.



Because the pulling trucks don't bounce around as much as the monster trucks, their builders are able to add all kinds of details. As you can see, a lot of time and work went into this one.

floor. As he tested his new truck, Dave slammed it into a wall at full throttle—radio problems. He worked until 6 a.m. the next morning preparing—and repairing—his truck for the Concours show on Saturday morning. Guess who won the 2000 President's Award this year; check out the photos.

On Saturday, it took more than eight hours to make three runs on each lane. Starting on Sunday at 8 a.m. sharp, racers all used the same track setup, and four runs on each lane gave them a chance to record six good times for the two days. Some racers would have liked a different track setup for Sunday; that might have helped those who had had difficulty with the figure-8 design. Others said they were getting familiar with this track, so it stayed. In the end, Bill Herzog took home first place in the Mod Monster truck class with a time of 62.14 seconds.

UNTIL NEXT YEAR

I've been into RC for 20 years, and the NR/CTPA is the first club I've found where you don't have to buy an RC kit off the shelf to compete and have fun with other RC nuts. The NR/CTPA would like to thank all its sponsors: Airtronics, Borderline Pullers, Bolink, Boca Bearings, Du-Bro, Novak, Losi, Nestlé Chocolate, Hooter Chassis & Hobby, RAM, Radio Active Raceways, RC Car Action, Progressive Suspension, Weight Pullers of Central NY, Futuba, Kyosho, DuraTrax, JJ's Precision Guesswork, Great Lakes Trophy, Pro-Line, JR Racing, Sassy Chassis and M.T. Pockets Pulling Team for all their help. For more information on the NR/CTPA, including its online rulebook, go to its website at www.webt.com/RCtruckpul, or call (716) 627-4321. Hope to see ya' next year!

**Addresses are listed alphabetically in "Featured Manufacturers" on page 225. ■*

VOLUNTEER TRACK DESIGNERS

This year, the NR/CTPA has a new monster truck director, Hank Wyatt. I'm sure everyone will agree that the racing went more smoothly than ever before. Every class's racing schedule was posted on the wall, so racers knew exactly when they had to get to the line. This made the event more enjoyable for all who competed.



MONSTER TRACK

On Saturday morning, volunteers were asked to design the track. Before the racing started, comments and suggestions about the track's setup were encouraged. There was even a vote to decide whether a group of jumps should stay or go. At first, a double-U shape was designed, then as more racers arrived, a figure-8 design became the final choice.

Once again, this year's track was challenging, but this wasn't because of tight turns. There were completely new jumps. The tallest had a maximum height of 8 inches, but the short ramps would throw a truck high into the air. Before it had a chance to settle down, there was another jump. I don't think the track was designed for any particular type of truck; it was challenging for everyone. Even 1999's winners had several DNF runs.

2000 NR/CTPA World Championship Winners

DIRT PULLERS

Class	Driver	Weight (lb.)	Distance
Digger	Birddog	13	27 ft., 8¾ in.
Garden Tractor	Jeff Stickle	15	Full pull
Pro Stock Tractor	J.T. Miller	37	29 ft., 10½ in.
4WD Modified	Pat Trapasso	37	27 ft., 2¾ in.
Mini Rod	Larry Jaques	31	Full pull
Big Rig	Larry Jaques	31	29 ft., 5½ in.
2WD Super Stock	Joe Killian	31	28 ft., 10½ in.
4WD Box Stock	John Jacobus	45	29 ft.
Dual-motor Stock	Rodger Brownell	45	Full pull
2WD Sportsman	Delbert Humes	45	Full pull
2WD Open I	Gerry Swartz	80	26 ft., 1¾ in.
4WD Dual-motor Mod	Larry Jaques	95	28 ft., 3¾ in.
2WD Open II	Darren Mealy	105	28 ft., 9 in.
Insane Outlaw	Joe Killian	75	Full pull
Gas	Dave Engle	150	24 ft., 9¾ in.

CARPET PULLERS

Class	Driver	Weight (lb.)	Distance
Digger	Brian Mochny	30	17 ft., 2¾ in.
Outlaw Garden Tractor	Mike Gross	65	21 ft., 10¾ in.
2WD Stock	Joe Killian	80	26 ft., 8¾ in.
Mini Rod	Jack Koogler	80	Full pull
Pro Stock Tractor	Jack Koogler	115	27 ft., 11 in.
4WD Box Stock	John Jacobus	100	23ft., 10¾ in.
Big Rig	Jon Lehman	115	25ft., 5½ in.
Bar Tire Sportsman	Justin Sanders	150	Full pull
Dual-motor Stock	Matt Wilkins	140	22ft., 11½ in.
2WD Sportsman	Tom Rausch	250	22ft., 4¾ in.
2WD Open I	Joe Killian	330	27ft., 10¾ in.
4WD Open I	Brad Pitt	300	Full pull
Dual-motor Mod	Brad Pitt	430	28ft., 2½ in.
2WD Open II	Dave Wright	555	28ft., 5½ in.

RACING

Class	Driver	Lap time (sec.)
2WD Box Stock Tuff Truck	Dan Wyatt	70.43
2WD Super Stock Tuff Truck	Charlie Miller	55.59
2WD Modified Tuff Truck	Bill Herzog	56.42
4WD Modified Tuff Truck	Bill Herzog	51.46
4WD Box Stock Monster Truck	John Etzler	85.31
4WD Super Stock Monster	Tim Powers	71.90
4WD Replica Chassis Monster	Tim Powers	65.77
4WD Modified Monster Truck	Bill Herzog	62.14
4WD Open Monster Truck	Bari Musawwir	63.97

LONG JUMP

Class	Driver	Distance
2WD	Brad Pitt	13ft., 1 in.
4WD	Dan Wyatt	18ft., 10 in.

PRESIDENT'S AWARDS

Class	Driver	Truck
Racing	Dave Pack	Truck OverKill
Pulling	Mike Gross	Kodiak

CONCOURS

Class	Driver	Truck
Racing	Dave Pack	Monster Patrol
Pulling	Delbert Humes	Pink Panther

BEST DESIGN

Class	Driver	Truck
Racing	Terry Spencer	Gladiator
Pulling	Delbert Humes	Pink Panther

BEST PAINT

Class	Driver	Truck
Racing	Brian Martonick	Wild Foot
Pulling	Delbert Humes	Pink Panther

PRO-LINE

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TRACK DIRECTORY



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ALABAMA

Hobby Raceway, 15717 Beacon Point Dr., Tuscaloosa, AL 35406; Don, (205) 333-8679

Hobbytown USA Raceway, 450-Q Schillinger Rd. N., Mobile, AL 36608; Rob & Karl Baker, (334) 633-8446

Lagoon Park R/C Raceway, 2730 Lagoon Park Dr., Montgomery, AL 36109; Alex Love, (334) 272-6438

Montgomery's Field of Dreams, 5924 Ralston Way, Montgomery, AL 36116; Mike Westendorf, (334) 281-9432; mike_westendorf@yahoo.com

Phenix Raceway & Hobby, 2006 Opelika Rd., Phenix City, AL 36867; Chris Watson, (334) 298-9786; http://www.xoom.com/PhenixHobby

R/C Hi-Tech Raceway, 3303 Meridian St., Huntsville, AL 35811; Rick Chambers, (205) 539-1347

R/C Thunder Tracks, 1530 Schillinger Rd., Mobile, AL 36675; for mail, use 8125-2 Moffett Rd., Semmes, AL 36575; Jerry Hurst, (334) 645-2787

ALASKA

Fairbanks R/C Car Club, 510 Juneau Ave., Fairbanks, AK 99701; Dan Anderson, (907) 456-5494

ARIZONA

Craft Barn Raceway, 11200 E. Hwy. 95, Yuma, AZ 85365; Matt Poston, (520) 726-1946

Hobbytown Raceway, 1102 E. 22nd St., Tucson, AZ 85704; (520) 882-8888

HobbyTown U.S.A., 5030 E. Ray Rd., Phoenix, AZ 85044; Linda McFarland, (480) 598-5282

Kiwanis Park R/C Raceway, 855 S. Magnolia Ave., Yuma, AZ 85364; Jim Schulz, (520) 783-5378

R/C Sports Mania, 3550 N. 35th Ave., Phoenix, AZ 85017; Brian Dick, (602) 278-3671

Scottsdale R/C Raceway, 3023 N. Scottsdale, Scottsdale, AZ 85251; Scott Anfinson, (602) 945-2186

Speedway Hobbies, 2710 N. Steve's Blvd., Ste. 8, Flagstaff, AZ 86004; Gary McAllister, (520) 714-1566

ARKANSAS

Airport Speedway, 1521 Airport Loop, Rogers, AR 72756; Mike Dollar, (501) 636-7123

Grand Slam Superspeedway, 5300 S. Zero St., Ft. Smith, AR 72901; Bryon Shumate, (501) 648-1994

Hobby Town USA, 356 E. Joyce, Fayetteville, AR 72703; Darrell Irvin, (501) 571-3730

Sparks R.C. Raceway, 7194 Greene 721 Rd., Paragould, AR 72450; Tommy Sparks, (501) 239-3606

CALIFORNIA

Asphalt Burners R/C Club, 21000 Imperial Hwy. and Harbor Blvd., La Habra, CA 90631; (562) 691-1409; www.asphaltburners.homepage.com; rc-racer@gmail.com

California R/C Raceway, 1230 N. Kramar, Anaheim, CA 92806; Taka, Sid, or Charlie, (714) 630-9300

Capital City R/C Center, 8950 Osage Ave., Suite A, Sacramento, CA 95829; Amer Sahout, (916) 383-3445

Castle Hobbies, 14918 Camden Ave., San Jose, CA 95124; (408) 377-3771

Delta R/C Speedway & Hobbyshop, 1201 W. 10th St., Antioch, CA 94509; (925) 778-2965

Desert Hobbies, 28-401 Date Palm Dr. Cathedral City, CA 92234; Mike Beall, (760) 202-8225

The Dirt Valley RC Racepark, 146 So. Santa Fe St., Hemet, CA 92343; Joe Christensen, (909) 925-7592

Gooch Raceway & Hobbies, 115C N. Chevy Chase Dr., Glendale, CA 91206; Devin Last, (818) 562-2380, fax (818) 242-0525

Hobby Central II Raceway, 13461 Community Rd., Poway, CA 92064; John, (858) 513-0373

Hot Rod Hobbies, 25845 San Fernando Rd., #21, Saugus, CA 91350; Rod Weisbaum, (805) 255-2404

Jake's Performance Hobbies, 6650 Commerce Blvd., #21, Rohnert Park, CA 94928; Jake, (707) 586-3375

Just for Fun R/C Raceway, 509 S. State St., Ukiah, CA 95482; Don, (707) 462-7305

M & M Hobbies, 4225 Prado Rd., Ste. 103, Corona, CA 91720; Joe Stanovich, (909) 272-3545

Paradise Hobbies, 491 Pearson Rd., Paradise, CA 95969; David Lafabregue, (530) 877-6477; fax (530) 873-2377

Racer's Haven Raceway, 7401 White Ln. #12, Bakersfield, CA 93309; Martin Buchanan, (805) 835-0441

Rams 1/8-scale Gas and 1/16-scale Gas On-Road, Mission College, Lot B, 3000 Mission College Blvd., Santa Clara, CA 95054-1897; Steve Tsuruda, (415) 675-5609

Rattlesnake Raceway, 16470 Benson Rd., Cottonwood, CA 96022; Mel or Mike Fisher, (530) 347-7215, email: RC-geezers@webtv.net; website: http://members.xoom.com/CAR-RCORR/Race.html

Rescue Mini Speedway, 4018 Green Valley Rd., Rescue, CA 95672; Bruce Pease, (530) 621-3948

Ripon R/C Speedway, 701 N. Acacia Ave., Ripon, CA 95366; Dan Tanis, (209) 599-5160

R.O.C.K.S., 2525 N. Texas St., Fairfield, CA 94533; Mike, (707) 207-0305; http://members.aol.com/solanorock

Sacramento RC Racing and Hobbies, 6201 27th St., Sacramento, CA 95824; Andreas Muller, (916) 424-4001, email: andreas123@earthlink.net; website: www.77sunset.com

Simi Valley Groundpounders, 392 C - East Easy St., Simi Valley, CA 93065; Jack Kasten, (805) 584-8211

So. Cal R/C Raceway, 19118 Brookhurst St., Huntington Beach, CA 92646; Jim Blauvelt, (714) 963-7484

Speedworld Raceway, 90 Corporation Yard Rd., Roseville, CA 95678; Billy Bowerman, (916) 783-8864

Ultimate Hobbies, 2378 North Orange Mall, Orange, CA 92665; Cliff Murukami, (714) 921-0424

Valley West Off-Road RC Club, 447 30 1/4 Rd., Grand Junction, CO 81504; Waymond Williams, (970) 242-8846

Central CT Auto Racers, Davis Hobbies II, 45A Welles St., Glastonbury, CT 06033; (860) 633-3056

East Lyme R/C Kar Klub, Society Rd., East Lyme, CT 06333; Howard Estorm, (203) 483-9201

K/N R/C Speedway Inc., West St., Stafford Springs, CT 06076; for mail, 44 Clearview Rd., Moodus, CT 06469; (860) 684-9896

Racing and Entertainment Center, 29 Olcott St., Manchester, CT 06040; Peter Tierini, (860) 643-4768

R/C Madness, 640 Enfield St., P.O. Box 64, Enfield, CT 06082; Christopher Marcy, (860) 741-8501

Xtreme Radio Control, 469 Danbury Rd., New Milford, CT 06776; Paul or Pete, (860) 354-4703

DELAWARE

The Hobby Outlet: Tracks of the Outlet, Salisbury Rd., Dover, DE 19901; Steve, (302) 697-8350

Hobby Stop Speedway, RD4, Box 100, Rte. 13, Seaford, DE 19973; Remy Haynes Jr., (302) 629-3944

FLORIDA

B&T RC Central, 811 Playground Rd., Ft. Walton Beach, FL 32547; Tim Miller, (850) 863-1666

Broward County R/C Race Club, Mills Pond Park, Ft. Lauderdale, FL; Ed Decembro, (954) 525-3304

Burton's R/C Raceway, 4215 Mustang Rd., Lakeland, FL 33803; Louie Burton, (941) 665-1322

Coral Springs Roadrunners, P.O. Box 9632, Coral Springs, FL 33075; John Argentino, (954) 925-8284

Dan's Hobbies, 17880 South Dixie Hwy., Miami, FL 33159; Maxy Velazco or Eric Vazquez, (305) 471-8133

Extreme Raceway and Hobbies, 4010 N. Lois Ave., Tampa, FL 33614; Mike Bevel, (813) 877-7223

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Extreme Raceway and Hobbies, 4010 N. Lois Ave., Tampa, FL 33614; Mike Bevel, (813) 877-7223

Farmer's Hobby Shop & Raceway, 5006-3 E. Broadway, Tampa, FL 33619; Greg Cardone, (813) 248-3314

First Coast Speedway, 6410 Waltho Dr., Jacksonville, FL 32211; Bob Thompson, (904) 743-2161

Frontier Race Track, 15260 N.E. 244th Ave., Salt Springs, FL 32134; Harold Reel, (352) 685-2881

GB's Hobbies, U.S. 1, Port St. Lucie, FL 34953; (561) 460-2844

G & C Hobby Raceway, 1228 Hypoluxo Rd., Lantana, FL 33462; George, (561) 547-3812, fax (561) 547-5010

Greater Orlando Auto Racers, 970 Keller Rd., Altamonte Springs, FL 32714; Rob Michael, (407) 834-9299

Hobby World Raceway, 7273 103rd St., Jacksonville, FL 32210; Greg, (904) 772-9022

Kissimmee R/C Auto Racing, Model Craft World, Osceola Square Mall, 3831 West Vine St., Ste. 60, Kissimmee, FL 34741; John Rosser, (407) 944-4913; email: john@craftworldflorida.com; website: craftworldflorida.com

Means R/C Raceway, 150 Pondell Rd., North Fort Myers, FL 33903; Pete Gonzalez, (941) 772-2251; email: jaimewootton@worldatt.net; http://members.xoom.com/wootj

Monster Hobbies, 616 Southeast 10th St., Deerfield Beach, FL 23441; (954) 428-9118

Morris Kohl's Raceway and Hobby Shop, 1202 W. Waters Ave., Tampa, FL 33604; Morris Kohl, (813) 931-1626

My Rose, 1695 W. Indiantown Rd., Jupiter, FL 33458; Mark Watson, (561) 744-3800

NORRA, 3300 Santa Barbara Blvd., Naples, FL 34104; Dan Rodriguez, (941) 352-9021

Ocala Radio Controlled Car Club, P.O. Box 70166, 2612 NE 24th St., Ocala, FL 34470; Bonita Hansley, Bill Hamilton, (352) 369-1895; email: staff@ORCCC.org; www.ORCCC.org

Paradise Speedway, Mile Marker 98.5 U.S. 1, P.O. Box 738, Key Largo, FL 33037; Joe Ravard, (305) 451-3707

Paul's Stadium Raceway, 4511 W. Dr. M.L. King Jr. Blvd., Tampa, FL 33614; Paul Surette, (813) 872-8662

PBG R/C Motor Park, 6351 Barbara St., Palm Beach Gardens, FL 33418; Doug Gleason, (561) 743-9791 or Tim Case, (561) 627-2608

Pro Hobbies Speedway, 715 N. Lake Pleasant Rd., Apopka, FL 32712; (407) 886-4615

Randy's RC Raceway, 7744 Glenwood St., Clermont, FL 34711; Randy Zimmer, (352) 242-0557

River City R/C Car Club, 9711 Sharing Cross Dr., Jacksonville, FL 32257; Bill Fraden, (904) 268-1948

KEY TO SYMBOLS

Indoor

Outdoor

Off-road

Oval

Dirt oval

Carpet

Concrete

Asphalt

On-site hobby shop

AC power

Auto lap counting

Food available

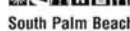
Sand Dollar Speedway, 1900 S Hwy 87, Suite 1, Navarre, FL 32566; Jim or Bev Patterson, (850) 939-8788; sanddollarspedway@aol.com; http://members.aol.com/sanddollarspedway.index.html



Santa Cruz Race Track, 8150 NW 71 St., Miami, FL 33166; Maxy or Eric, (305) 471-8133; email: maxy@iamnet.com; web: www.danshobbies.com



South Daytona R/C Raceway, 2121 S. Ridgewood Ave., South Daytona, FL 32119; Mike Bean, (904) 426-6481



South Palm Beach Racers, South County Regional Park, West Boca Raton, FL 33486; Mike Fazio, (561) 338-5367



Superior Hobbies R/C Parking Lot Racing, 1478 Semoran Blvd., Casselberry, FL 32707; Rob Michael, (407) 834-9299; www.superiorhobbies.com; racing@superiorhobbies.com



University RC Speedway, 8475 Cooper Creek Blvd., University Park, FL 34201; Mike Boylan, (941) 358-7047



GEORGIA

Anthony's Victory Lane, 129 East Hwy 80, Pooler, GA 31322; Anna Stephens, (912) 748-0847



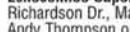
Augusta R/C Racer's Club, 3628 Crawfordville Dr., Augusta, GA 30909; Darren, (706) 364-5608



Bullet Raceway and Hobby, 3735 Old Flowery Branch Rd., Oakwood, GA 30566; Mark Taaffe, (770) 534-9229



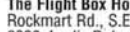
Dalton Raceway, 3036 Parquet Rd., Dalton, GA 30720; (706) 226-6699



Echeconnee Superspeedway, 2149 Richardson Dr., Macon, GA 31206; Andy Thompson or Cliff Kline, (912) 788-8731



Emerald City R.C. Speedway, Highway 40 East, East Dublin, GA 31021; Terry Cook, (912) 272-3856



The Flight Box Hobby Shop, 3134-C Rockmart Rd., S.E. Rome, GA 30161-6826; Leslie Duke, (706)-234-3014



Hobby Town Raceway, 2301 Airport Thruway, Columbus, GA 31904; Frank Bastos, (706) 660-1793



Phil Hurd Raceway, 15 W. York Ln., Savannah, GA 31401; J. Filipow, (912) 232-9985; jfilipow@scad.edu



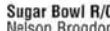
Prime Time Hobby and Crafts, 432 South Wall St., Calhoun, GA 30701; Vicky or Tommy, (706) 625-9037; www.rcracing.com



Sandy Cross Speedway, Rt. 1, Box 1071, Hwy. 51, Royston, GA 30662; Morris Phillips or Wayne Fowler, (706) 245-9573



Shiloh R/C Raceway, 6362 Shiloh Rd., Hahira, GA 31632; Doug Burnett, (912) 794-2507



Sugar Bowl R/C Speedway, 5272 Nelson Brogdon Blvd., Sugar Hill, GA 30518; Shelley Bailey, (770) 945-6709



HAWAII

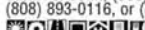
Garden Isle R/C Racers, 5855 Ahakea St., Kapaa, Kauai, HI 96746; Arnold Morales, (808) 823-0856



Kakaako Water Front Park Dragway, 98-029 Hekaha St., Bay #32, Alea, HI 96701; James Inkyo, (808) 487-5155



Mauli R/C Racing Association, 230 Hana Hwy., Unit 11, Kahului, HI 96732; Garret or John, (808) 873-0376, (808) 893-0116, or (808) 646-6687



Pearl City Raceway, 98-029 Hekaha St., Bay 32, Alea, HI 96701; James Inkyo, (808) 487-5155



Radio Control Hawaii, 474 Kalanikoa St., S-104, Hilo, HI 96720; Glenn Shiroma, (808) 935-5629



Team PRC Racing Club, 176 Mamo St., Hilo, HI 96720; Charlie, (808) 935-3561



Triangle R/C Racing, 1870 CR 1600 N, Urbana, IL 61803; Scott Weaver, (217) 469-0121



IDAHO

Almosta Ranch Speedway, 1732 Eldridge Ave., Twin Falls, ID 83301; Casey Clements, (208) 733-8219



Boise Hobby Raceway, 4516 Overland Rd., Boise, ID 83705; Jim, (208) 363-9555



Capital Dirt Burners, 1612 Latah, Boise, ID 83706; Jim Small, (208) 433-1631



Dirt Stuff Plus, 5344 N. Yellowstone Hwy., Idaho Falls, ID 83401; Brian Krahn, (208) 522-7576



ILLINOIS

Adams R/C Raceway, 7201 S. Adams, Bartonville, IL 61607; Ray Tigue, (309) 633-9300



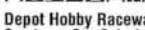
AJ's Raceway & Hobby, 10211 Keslinger Rd., DeKalb, IL 60115; A.J. Schultz, (815) 756-2772



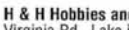
C.I.R.C.A., 905 Bibbs St., Jacksonville, IL 62650; Sport 'n' Hobby, (217) 245-1375



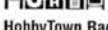
C&R Hobbies, 39 E. Jones, Milford, IL 60953; Ray, (815) 889-4073



Depot Hobby Raceway, 180 S. Seminary St., Galesburg, IL 61401; (309) 432-9323



H & H Hobbies and Raceway, 9346 Virginia Rd., Lake in the Hills, IL 60102; Mike Hollingsworth, (847) 458-1777



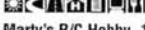
HobbyTown Raceway, 2103 N. Veterans Pkwy., Bloomington, IL 61701; Gary Pritts, (309) 664-4451



Leisure Hours R/C Raceway, 24121 W. Theodore, Bldg. 1, Plainfield, IL 60544; Scott Hill, (815) 439-1777 (track), (815) 439-1477 (shop)



Machesney Park, 1220 Shappert Dr., Machesney Park, IL 61115; (815) 282-1311



Marty's R/C Hobby, 1335 E. Broadway, Bradley, IL 60915; Gail or Marty, (815) 933-8441



Monee R/C Raceway, 26049 Ridgeland Ave., Monee, IL 60449; Roy or Roberta Moody, (708) 534-2422 (track), (708) 799-5597 (office)



Outlaw R/C Speedway, 1614 Broadway, Mattoon, IL 61938; (217) 234-6229



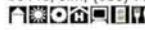
Pontoon Raceway, 3670 St. Rte. 111, Granite City, IL 62040-4304; Pat or Skip, (618) 931-1206



Quad Cities Radio Raceway, 541 1st Ave. North, Silvis, IL 61282; Tom Bedwell, (309) 751-9663



Radio-Active Raceway, 751 N. Bollingbrook Dr., #15, Bollingbrook, IL 60440; Jim, (630) 759-7557



Rector's R/C Raceway, RR 3, Box 104, Albion, IL 62806; Tim Wolfe, (618) 842-9379 (M-F), (618) 446-3282 (Sun.)



RMR Raceways, 19091 West Casey Rd., Libertyville, IL 60048; Ron Rawald, (847) 549-6963



Shiloh Eagles Superspeedway, 308 N. Virginia Ave., Belleville, IL 62220; (618) 277-6030



Stanton Hobby Shop, 4718 N. Milwaukee, Chicago, IL 60630; Kevin Kane, (773) 283-6446



Valley Farms R/C Raceway, 706 Bypass 20, Cherry Valley, IL 61016; Dean or Debbie, (815) 332-4516 or (815) 547-5984



Wep Speedway, RR #2, Box 44, Lawrenceville, IL 62439; Bill Poe



INDIANA

BD R/C Off-Road Racing, 13255 Chippewa, Mishawaka, IN 46545; Betty or Bob, (219) 257-1098; 02kie@aol.com; www.angelfire.com/in/bdrcffroad/index.html



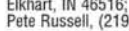
Bremen Racing Ent., 308 N. Bowen, Bremen, IN 46506; Dale Heuberger, (219) 546-3807



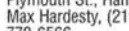
The Dirt Yard, 1117 W. Epler Ave., Indianapolis, IN 46217; Keith Dudas, (317) 786-6417



GM Raceway, 1651 W. Franklin St., Elkhart, IN 46516; Pete Russell, (219) 293-1827



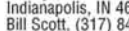
Hardesty R/C Raceway, 11 East Plymouth St., Hamlet, IN 46532; Max Hardesty, (219) 867-8600 or (219) 772-6566



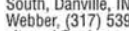
Hobby Barn Raceway, 1950 Springhill, Terre Haute, IN 47802-9694; (812) 299-5773



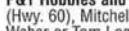
Hobbytown U.S.A., 5385 E. 82nd St., Indianapolis, IN 46250; Bill Scott, (317) 845-4106



Nitro R/C Speedway, 4310 West 400 South, Danville, IN 46122; John Webber, (317) 539-4413; email: nitrorc1@aol.com



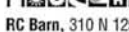
P&T Hobbies and Raceway, RR 2 (Hwy. 60), Mitchell, IN 47446; Paul Weber or Tom Logsdon, (812) 849-6666; email: pnthobby@big-foot.com



Race Street Hobbies, 1126 1/2 Race St., New Castle, IN 47362; Jim Burke, (765) 521-4888



RC Barn, 310 N 125 W, Monroe, IN 46722; Mark Lengerich, (219) 692-6600



R/C World of Indiana, 2246 West U.S. Hwy. 36, Lynn, IN 47355; Joe Kolp, (765) 874-2464; e-mail: rcworld@glob-alsite.net; web: www.RCWORLD.com



R/C Mania, 8 Wood Ct., Hebron, IN 46341; Ron Traubach, (219) 996-6288 (shop); (219) 762-5365



The Rink, 7900 Whitcomb, Merrillville, IN 46410; Don Reiner, (219) 769-8113



Showtime Lot Racing, 606 Lower Huntington Rd., Fort Wayne, IN 46815; Mike Romines, (219) 478-6099



Summit Area Radio Cars (SARC), 7000 Red Haw Dr., Fort Wayne, IN 46805; John Kissel, (219) 492-2271



IOWA

Delb's Speedway, 423 11th Ave. So., Clinton, IA 52732; Rusti's Miniatures and Hobbies, (319) 243-2697



Hobby Haven, 7672 Hickman Rd., Des Moines, IA 50322; Rick Marble, (515) 276-8785



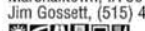
IROAR—Hawkeye Downs Raceway, Hawkkey Downs, 6th St. S.W., Cedar Rapids, IA 52404; Dave Kleinschrodt, (319) 556-8524



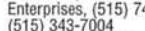
Manly R/C Club, Box 23 (Hwy. 65), Manly, IA 50456; Bruce Hill, (515) 454-2025



Mr. Car Raceway, P.O. Box 1112, Central Iowa Fairgrounds, Marshalltown, IA 50158; Jim Gossett, (515) 483-2234



Outback Speedway, 108 West Iowa, Greenfield, IA 50849; Helens Enterprises, (515) 747-3064, trackside (515) 343-7004



Radio Control Raceway Park, 2100 First Ave. N., Fort Dodge, IA 50501; Bernie Halverson, (515) 576-3780



Riverside Raceway, Veteran's Park, Algona, IA 50511; Mike Beisch, (515) 295-9352



Wild Bill's Raceway, 901 W. Jones, Knoxville, IA 50138; William Anderson Jr., (515) 842-5973



KANSAS

Creeks Crossing Speedway, 2340 Military Rd., Baxter Springs, KS; Richard, (316) 858-5088



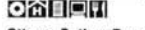
Ebersole Hobby and Raceway, 11417 W. Hwy. 54, Wichita, KS 67209; Sherri McWilliams, (785) 722-8888



Hobbytown USA, 2016 W. 23rd, Lawrence, KS 66046; Kevin Decembris, (785) 865-0883



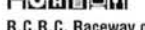
Mike's R/C Hobbies, 121 SE 29th St., Unit #3, Topeka, KS 66605; Mike Barnard, (913) 266-5767



Ottawa Outlaw Raceway, 114 South Main, Ottawa, KS 66067; Tom Wilson, (913) 242-1450



R/C Superdome and T.Q. Pro Shop, 14 E. Avenue A, Hutchinson, KS 67501; Cody or Joe, (316) 665-6633



R.C.R.C. Raceway of Salina, 1300 E. Crawford, Bill Burke Park, Salina, KS 67401; Calvin, (913) 823-9588



T.Q. Pro Shop, 14 E. Ave. A, Hutchinson, KS 67501; Cody Jandrakovic, (316) 665-6633



KENTUCKY

Dixon's R/C Raceway, 1428 Lost Creek Rd., Hazard, KY 41701; Jeff Dixon, (606) 436-4820



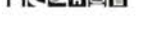
Pit Stop Hobbies, 106 A St., Benton, KY 42025; Robert Fitzgerald, (270) 443-0052



Somerset Raceway, 188 Sycamore Dr., Bronston, KY 42518; Denny, (606) 561-4522



Trio Hobbies & R/C, 216 Redmar Plaza, Radcliff, KY 40160; Maurice Johnson, (502) 351-7547



LOUISIANA

Baton Rouge Velodrome, 7122 Perkins Rd., Baton Rouge, LA 70815; Weldon Sharon, (225) 665-5616



Gator R/C Raceway, 3691 Hwy. 171 N., Lake Charles, LA 70611; Tony Diaz, (318) 855-3206



Pontchartrain Hobby Shop, 3755 Pontchartrain Dr., Slidell, LA 70458; (504) 649-1199



MAINE

Clay Bowl R/C Hobbies, P.O. Box 61, Greene, ME 04236; Pat Cap, (207) 946-5003



R/C Speedway & Hobbies, 87 Main St., Fairfield, ME 04963; David Prescott, (207) 453-4588



MARYLAND

Doug's Raceway, 2935 Crain Hwy., Waldorf, MD 20601; Doug Moran Jr., (301) 843-6220



Larry's Performance R/Cs, 43665 Utica Rd., Sterling Heights, MI 48314; Larry, (810) 997-4840



Lazer RC Speedway, 2858 N. Wilmoth Hwy., Adrian, MI 49221; Russ Johnson, (517) 263-2806



Motor City Speedway, 1602523, mile, R., Macomb Township, MI 48042; Gary Cornwell, (810) 677-2470



N.M.R.C.C. Raceway, Hobby Toy, Main St., Gaylord, MI 49735; Ed Schneider, (517) 732-3963



Ovalt's R/C Speedshop, 3920 N. U.S. 31 S., Traverse City, MI 49684; Jim Ovalt, (616) 947-6670



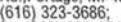
R.A.C.E. Inc., 3227 Mathews, Jackson, MI 49203; Sam Sprang, (517) 787-9161



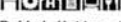
Raw Roots Race Tracks, 14623 East Crowwell, 1/4 mile north on 152nd (off U.S. 31), West Olive, MI 49460; Roy Bennink, (616) 399-9338



R&L Hobbies & Racing, 9782 Portage Rd., Portage, MI 49002; Rex Simpson, (616) 323-3686; fax (616) 329-1744; email: rinfo@rhhobbies.com; www.rhhobbies.com



Robby's Hobbys, 1106 Columbus, Bay City, MI 48708; Dan, (517) 893-2712



Rodgers R/C Raceway, 7463 Ridge Rd., Britton, MI 49229; George Rodgers, (517) 451-8301



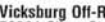
Superior R/C Raceway, 160 S. County Road 553, Lot 173, Gwinn, MI 49841; Frank Felster, (906) 346-7225



Thumb Raceway, 3441 Main St., Marlette, MI 48453; Jim Wilson, (517) 635-7848



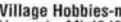
Vicksburg Off-Road R/C Raceway, 50201 Silver St., Vicksburg, MI 49097; Tim, (616) 323-7963



T.J.'s RC Raceway, Rt. 2, Box 22C, Luther, MI 49656; Tod Smart, (616) 797-8035



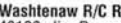
Village Hobbies-n-Crafts, 195 N. Elm, Hesperia, MI 49421; Alan or Fran, (616) 854-1374



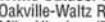
Village R/C Raceway, Prairie Ronde St., Decatur, MI 49045; Chuck Nolke, (616) 423-7878



Washtenaw R/C Raceway, Ypsilanti, MI 48198; Jim Rousseau, (734) 395-5048



Willis Outdoor R/C Racetrack, 13922 Oakville-Waltz Rd., Willis, MI 48191; Mike Higgins, (734) 587-2012



MINNESOTA

Bemidji R/C, 1015 Miles Ave. S.E., Bemidji, MN 56601; Russ or Ryan, (218) 751-1629



Car Town USA, 2822 Piedmont Ave., Duluth, MN 55811; Roger Deloach, (218) 727-6248



Central RC, 1620 Central Ave., Minneapolis, MN 55330; Doug Ringold, (612) 781-1640



Country R/C Raceway Park, 24214 325th St., Belview, MN 56214-8115; Charles L. Steffi, (507) 641-8115



Duey's Hobbies & R/C Raceway, 6600 Cahill Ave., Inver Grove Heights, MN 55076; Duey Carlson, (612) 450-1721



Granite City R/C Speedway, 3555 Shadowwood Dr. N.E., East Hwy. 23, Sauk Rapids, MN 56379; Brett Donahue, (320) 251-6980



J's Radio Control Race Park, 22994 290th Ave., Starbuck, MN 56381; Jay Campbell, (320) 239-4827



Kevin's Private Off-Road Raceway, 702 So. Washington Ave., Crookston, MN 56716-2317; Kevin Altpeier, (218) 281-7523 or (218) 281-7491;

www.rvv.net/krc; email: kevins@rvv.net; (note: registration required for permission of use)



Northwoods Hobby Raceway, 2638 Hwy. 25 North, Brainerd, MN 56401; Tom Grogg, (218) 829-9257



Ray's Raceway Park, 105 3rd Ave. NE, Glenwood, MN 56334; Dan Winter, (320) 634-5246



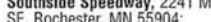
R/C Racing World, 235 Main Ave. North, Harmony, MN 55938; Mark McKay, (507) 886-5931 or (507) 886-2224



Red Barn RC Raceway, Rt. 4, Box 333, Mankato, MN 56001; Rusty Weiss, (507) 345-8972



Southside Speedway, 2241 Marion Rd. SE, Rochester, MN 55904; Kevin Guy, (507) 281-3233



Sport Zone RC Race Park, 32339 Harris Town Rd., Grand Rapids, MN 55744; Greg, (218) 326-8956



Time R/C Raceway, 20 West Lake St., Chisholm, MN 55719; RV, (218) 254-4321



MISSISSIPPI

Joe McFaden Hobbies, 5531 Fox Meadow Dr., Meridian, MS 39307; Joe McFaden, (601) 483-7000



Small Cars Unlimited, 820 Cooper Rd., Jackson, MS 39212; (601) 372-FAST; www.smallcarsunlimited.com



X-Treme RC, 18332 Amanda Ln., Saucier, MS 39574; Marty Capers, (228) 539-2004



MISSOURI

All Seasons Hobby, 29 O'Fallon Square, O'Fallon, MO 63366; Bob Daniels, (314) 281-8767



B&L Hobbies & Raceway, 2800 Anchor Dr., Park Hills, MO 63061; Bob Marler, (573) 431-9444



Fire Mountain Raceway, 8647 Commercial Blvd., Pevly, MO 63070; Dan Gordon, (314) 475-6449



Greentree R/C Racepark, St. Louis Dirt Burners R/C Club, Marshall Rd., Kirkwood, MO; (314) 831-2194



Hobbies 'N Stuff Raceway, 204 Mall Pkwy., Wentzville, MO 63385; Tim Satchwill or Crandall Olds, (314) 327-6006



North Missouri Raceway, 223 Graves St., Chillicothe, MO 64601; Billy Johnston, (660) 646-1120



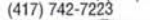
Novelty R/C Raceway, Rt. 1, Box 132A, Novelty, MO 63460; Rex or Jena, (660) 739-4546; email: rexjen@marktwain.net



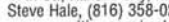
Ozark Mountain Speedway, Rt. #2, Box 50, H-Highway and County Rd. 31, Noel, MO 64854; Clayton Younker, (417) 475-6222



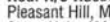
Ozarks R/C Raceway, Hwy 13N, Brighton, MO 65781; Gene Rhodes or Ron Hawkins, (417) 742-4376 or (417) 742-7223



Real Blue Vue Speedway, 12019 E. 47th St., Kansas City, MO 64133; Steve Hale, (816) 358-0238; www.geocities.com/real_rc_raceway



Real R/C Raceway, 24204 State Rt. 58, Pleasant Hill, MO 64080; Steve Hale, (816) 540-5584



MONTANA

Stormer Raceway & Slot Motorplex, P.O. Box 126, Hwy. 2 East, Glasgow, MT 59230; (406) 228-4569



NEBRASKA

Goodyear Speedway and Off-Road, 4021 North 56th, Lincoln, NE 68510; Tom or Bob, (402) 464-5172



Hadar R/C Raceway, 55192 849th Rd., Norfolk, NE 68701; John Schoenauer, (402) 644-7922



Hobby Town USA Raceway, N. 1st St. & Cornhusker Hwy., Lincoln, NE 68508; Ben Smith, (402) 434-5056



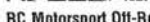
Mr. Bill's, 450 West 2nd St., Hastings, NE 68901; Bill J. Ries, (402) 462-4865



O.N.R.O.A.D., 3307 N. 58 St., Omaha, NE 68104; Cook Jacobs, (402) 556-8674



OTWG Carpet Raceway, 55129 849th Rd., Norfolk, NE 68701; John Schoenauer, (402) 644-7922



RC Motorsport Off-Road Raceway, 5600 Mass Rd., Papillion (Omaha), NE 68133; Marty Stepanek, (402) 593-6133



Salvation Army South Corps, 4032 Harrison St., Omaha, NE 68164; (402) 734-3414; fax (402) 734-3415



T & T Raceway, 476 26th Ave., Columbus, NE 68601; Tom, (402) 564-9216



The Speed Zone, 1524 Atokad Dr., South Sioux City, NE 68776; Rob Murdock, (712) 428-4679, or Jim Carson, (712) 274-7731



Wacha's R.C. Speedway, 1823 23rd St., Columbus, NE 68601; Tom Smith, (402) 564-9216



NEVADA

Bill's Hobby Shop, 1000 N. Nellis Blvd., Las Vegas, NV 89110; Bill Schultz, (702) 531-3282; website: www.billshobbyshop.com



Dansey's Indoor R/C & Hobbies, 741 N. Nellis, Las Vegas, NV; David Lugo, (702) 453-RACE, (888) 675-8963; www.danseys.com



Lizard Raceway, P.O. Box 1248, Verdi, NV 89439; Jeff Griffin, (702) 345-6573



NEW HAMPSHIRE

Axis Racing R/C Dragway, 4197 High St., Exeter, NH 03833; Dan Peterson, (603) 659-4877



Economy R/C Speedway, 4 Maple St., Winchester, NH 03470; Harold Thomas, (603) 239-4482 or 239-6470



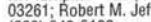
Lakes Region R/C Speedway, Lily Pond Rd., Gilford, NH 03246; (603) 524-2909, or (603) 524-2628



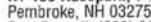
North Haverhill R/C Racing, Main St., N. Haverhill, NH 03774; Shelly White, 111 Golf Links Rd., Wells River, VT 05081; Todd White, (802) 757-2579



Robert's Railroad & Hobbies, 1335 1st NH Turnpike—Rt.4, Northwood, NH 03261; Robert M. Jeffers Jr., (603) 942-5193



RT 106 Racepark, 743 Clough Mill Rd., Pembroke, NH 03275; Fred Farwell, (603) 224-RACE



NEW JERSEY

American Raceway, 142 Wilson Ave., Englishtown, NJ 07726; Doug Venner, (732) 446-3737; email: DMCI2@prodigy.net



America's Hobby Center Inc., 8300 Tonnelle Ave., North Bergen, NJ 07047; John Many, (201) 662-0777



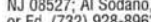
Checkerboard Raceways, P.O. Box 240, Elwood, NJ 08217; Ray Murray, (609) 629-4809



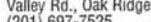
Family Hobbies Raceway, 3576 N.W. Blvd. & Weymouth Rd., Vineland, NJ 08360; Linda Vogel, (609) 696-5790



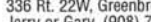
Jackson R/C Racing, P.O. Box 565, Christopher Columbus Blvd., Jackson, NJ 08527; Al Sodano, (732) 364-6422, or Ed, (732) 928-8963



Jefferson Speedway, 5494 Berkshire Valley Rd., Oak Ridge, NJ 07438; (201) 697-7525



Jerry's Hobby Center & Raceway, 336 Rt. 22W, Greenbrook, NJ 08812; Jerry or Gary, (908) 752-6030



LBRA Track, 392 Warburton Pl., Long Branch, NJ 07740; (908) 222-5122



Millville R/C Oval, 114 N. High St., Millville, NJ 08332; William Denstoz, (609) 327-4640



On Trax Hobbies, 3101 Rte. 70, Browns Mills, NJ 08015; Joseph DiGirolamo, (609) 735-0422



South Jersey Cost Controlled Racing, 25 Jackson Ln., Sicklerville, NJ 08081; Ray Murray, (609) 629-4809



The Race Place, 1151 Hwy. 33, Farmingdale, NJ 07731; John Fary, (908) 938-5215



NEW MEXICO

Big Boys Toys Raceway, 1735 Juan Tabo, Albuquerque, NM 87112; Isaac Garcia, (505) 298-1023; www.bigboytoys.theshoppe.com



Las Cruces R/C Racing Association, Meerscheid Recreation Center, Walnut and Hadley by BMX, Las Cruces, NM 88001; Robert, (505) 526-6856 or Jim, (505) 527-4284; email, jade@zianet.com; www.zianet.com/jade/lccrca.htm;



NEW YORK

B&S RC Speedway, 15661 Route 31, Albion, NY 14411; Dan Bellow, (716) 589-0621; bandsspeedway.go.to; www.go.to/bandsspeedway



Barnstormers Speedway, 205 Gray Court Rd., Chester, NY 10918; Lou, (914) 469-6468; trackside (914) 469-8206



Brennan's R/C Hobbies, 6368 State Rt. 5, Vernon, NY; Bill or Tom Brennan



Brownie's Pro & Sport Hobbies, 124 Bennett St., Staten Island, NY 10302-1428; John Brown, (718) 727-2194



Bruckner Racing, 2908 Bruckner Blvd., Bronx, NY 10465; Thomas Baffers Sr., (800) 288-8185



BSK Hobbies & Raceway, 120 Main St., Hornell, NY 14843; Bruce Harris, (607) 324-4011, (800) 603-0197



C&D Raceway, 12542 NYS Rte. 12E, Chaumont, NY 13622; Chris or Don Bourquin, (315) 649-5403



Capital District R/C Racers, 27 Venus Dr., Albany, NY 12211; Peter Willis, (518) 482-7128



Chippmunk Hill R/C Speedway, 217 Pine St., Theresa, NY 13691; Ted or Pete House, (315) 628-5065



Competition Hobby Speedway, 1006 Loudon Rd. Rte. 9, Latham, NY 12047; Howie or John, (518) 786-3622

South Shore Hobby & Raceway
464 East Main St.,
Patchogue, NY 11772;
Benny or Bonnie, (516) 758-5567
R/C

Tri County Remote Control Car Club,
36 West Decker St., Johnstown, NY 12095;
Tom Leville, (518) 725-1279
R/C

TARMAC—Ultimate R/C Raceways,
28/30 Mountain View Rd., Poughkeepsie,
NY 12603; Todd, (914) 342-5409;
Greg, (914) 528-5084;
trackside, (914) 454-8276;
www.tarmacraceway.com
R/C

Walt's Hobby, 2 Dwight Park Dr.,
Syracuse, NY 13209; (315) 453-2291
R/C

Westfield R.C. Speedway, 27 Clark St.,
Westfield, NY 14872;
John or Jared Lindstrom,
(716) 326-2339; 716-326-2309
R/C

Whitestone, 30-56 Whitestone Expy.,
(Dept. of Motor Vehicles), Flushing, NY
11374; Rudolf Ardilla, (718) 966-6155
R/C

Willis Hobbies R/C Speedway, 300
Willis Ave., Mineola, NY 11501;
Ken Ford, (516) 746-3944
R/C

ZOAR Road Speedway, 15318 Armes
Cl., Gowanda, NY 14070; David &
Gordon Ackler, (716) 532-9463
R/C

NORTH CAROLINA

A&J R/C Models, 2051 Anthony Rd.,
Burlington, NC 27215; Jerry Loye or
Andrea Thompson, (336) 227-4556;
fax (910) 227-1001
R/C

The Antique Barn, 2810 Forest Hills Rd.,
Wilson, NC 27893; (252) 237-6778
R/C

Atlantic Coast R.C., 8-A Lockhead Ct.,
Greensboro, NC 27409; Charlie Higgins
or Harry Johnson, (336) 664-1277
R/C

Badin Shore Raceway, 1730 Jackson
Lake Rd., High Point, NC 27263; Jimmy
or Tim Martin, fax (910) 431-6407
R/C

C/C Hobby Speedway, 8358 U.S. Hwy.
220 Bus. N., Randleman, NC 27317;
Steve & Mary Cox, (910) 495-3482
R/C

C/W R/C Speedway, 1297 Charlotte
Hwy., Asheville, NC 28730;
Billy or Tim, (828) 684-0061
R/C

Carolina Dragway, 1555 Turkey Hwy.,
Clinton, NC 28328; (910) 592-9489
R/C

Chatham R/C Raceway, 326 Reno
Sharpe Store Rd., Bear Creek, NC
27207; Dwight Fields, (919) 898-2991
R/C

Green Flag RC Raceway, 107 Harley
Rd., Wilmington, NC 28401; Mike
McLemore, (910) 452-1620
R/C

R & D Speedway, 418 Main St.,
Tarboro, NC 27886;
John Dupree, (919) 823-2294
R/C

Ride & Slide R/C Raceway, 5319
Yadkin Rd., Fayetteville, NC 28303; Bill
Culbertson, (910) 867-4202
R/C

Radio Jockey's Parkway, "RJ's,"
Rt. 9, Box 651, Fay, NC 28301;
www.wave-net.net/mshutt;
Tony Starling, (910) 486-4820
R/C

R.C.R. Speedway, 1415 Henderson
Grove Church Rd., Salisbury, NC
28147; Ronnie Linker, (704) 637-2565
R/C

Rosewood R/C Speedway, 651
Community Dr., Goldsboro, NC 27530;
Glenn Elam, (919) 734-7754
R/C

Southern RC Motorsports Club, Hwy.
17S., P.O. Box 1651, Shallotte, NC
28459; Mark Whit, (910) 754-4902 or
Eddie Ferster, (910) 754-8528
R/C

Youngsville R/C Club, 6516 NC 96
Hwy. W., Youngsville, NC 27596; James
Ray, (919) 556-0446
R/C

NORTH DAKOTA

Northern Mini Racers,
1000 36th St. S.E., Minot, ND 58702;
Mike, (701) 838-5818
R/C

River City R/C, 2714 Main Ave., Fargo,
ND 58103; Chris, (701) 235-1272
R/C

OHIO

AK Hobby and Raceway,
3826 North Bend, Cincinnati, OH
45211; Tim Tolle, (513) 661-7080
R/C

American Ohio Sprint Car, 1708
Empire Rd., Wickliffe, OH 44092;
Gary Waldhelm, (440) 944-9966
R/C

Classic Hobbies, 1994 E. Waterloo
Rd., Akron, OH 44312; Walt Ellis,
(330) 733-6400
R/C

CORCAR/Sams Club, 128 Amity Rd.,
Willis Ave., Mineola, NY 11501;
Ken Ford, (516) 746-3944
R/C

Columbus R/C Racing Club
(C.R.C.R.C.), Franklin County
Fairgrounds, Hilliard, OH 43026;
Jeff Crowell, (614) 236-1783
R/C

D&J R/C Raceway, 801 W. Market St.,
Orville, OH 44667; Don Yoder or Mark
Nussbaum, (330) 682-4266
R/C

DeFosse Raceway, 7652 Gooselick
Rd., Ripley, OH; Greg DeFosse, (937)
377-2063
R/C

Full Throttle Raceway, 600 Mt. Moriah
Dr., Cincinnati, OH 45255;
Bill Dolch, (513) 943-9009 or via pager
at (513) 730-1073
R/C

Glass City Radio Control, 2620 Ivy Pl.,
Toledo, OH 43613;
Frank Johnson, (419) 472-1286
R/C

Greentown R/C Raceway, 3353
Perrydale, Greentown, OH 44630;
Chuck Lambert, (330) 364-6585
R/C

Hobby Shop Raceway, 2096
Miamisburg Centerville Rd.,
Centerville, OH 45459;
The Hobby Shop, (937) 436-6161
R/C

Hobby World, 3499 SR 59, Ravenna,
OH 44266; Tom Fry, fax (330) 296-
0894
R/C

J & L R/C Raceway, 5342 W. St. Rt.
718, Troy, OH 45373; Mike Wegman,
(513) 521-3408; email: wegs@one.net
R/C

Lafferty R/C Raceway, Box 153, 70228
Hurrah St., Lafferty, OH 43951;
Chris Christman, (740) 968-4818
R/C

Mid American Raceway, 13150 Airport
Hwy., Swanton, OH 43558;
Bill or Chuck, (419) 475-9459
R/C

Nothing But Air R.C. Track, 34632 True
Rd., Logan, OH 43138;
Gary Lloyd, (740) 385-0288
R/C

R&R Speedway, 1258 W. Alexis,
Toledo, OH Ron Tennyson,
(734) 665-2849;
www.mrspeedway.iwarp.com
R/C

TARCAR, 7216 Nebraska Ave., Toledo,
OH 43617; Bill Bridges, (419) 826-3859
R/C

Van Wert R/C Raceway, 144 E. Main St.
(above Hoverman Music), Van Wert, OH
45891; Mark Davis, (419) 232-2112
R/C

Y-City Hobby & Speedway, 120 S. 6th
St., Zanesville, OH 43701;
Kevin McKenna, (674) 455-3025
R/C

OKLAHOMA

Adams Creek R/C Speedway, 5207 S.
194th E. Ave., Broken Arrow, OK
74014; John Beigle, (918) 355-1416
R/C

Competition R/C, 100 S.E. 89th,
Oklahoma City, OK 73149; James or
Louise Brown, (405) 634-0809
R/C

Enid R/C Speedway, 1821 S. Van
Buren (Hwy 81), Enid, OK 73701; Bob,
(580) 233-3344 or (580) 234-7666
R/C

R/C Speedway of Lawton, 202
Southeast B. Ave., Lawton, OK 73501;
Rick (580) 355-8040
R/C

Wild Country Speedway, 127 S. Main,
Porter, OK 74454; Charles McCollough,
(918) 685-0372 or
(918) 687-1686
R/C

OREGON

Competition Racing Association,
17941 N.E. Gleason, Portland, OR
97230; Mark Taylor, (503) 761-1334
R/C

D.I.R.T. R.O.A.D. Club, 65540 73rd
St., Bend, OR 97701; Daleyne and
Edward Giletz, (541) 388-2932 or (800)
475-6040, ext. 777 (at 2nd dial tone,
enter ext.); email: blue@coinet.com
R/C

R/C Plus Hobbies Raceway, 1857 25th
St. S.E., Salem, OR 97302;
Ron Smith, (503) 364-9188
R/C

R/C Speed Center, 2810 N. Pacific Hwy.,
Medford, OR 97501; Gene and Betty Jean
Skelton, (541) 779-8298
R/C

Rose City Scale Racing, Highway 224,
K-Mart parking lot, Milwaukie, OR
97222; Rick Strauss, (503) 631-2929
R/C

Yamhill County R/C Car Club, 722
Morgan Ln., McMinnville, OR 97128;
Larry Rucker, (503) 472-7234
R/C

PENNSYLVANIA

B&B Raceway, 1301 Pine St., Berwick,
PA 18603; Ray Berry Jr.,
(717) 759-3469
R/C

Courtview Raceway, 20 S. Main Street
(lower level), Washington, PA 15301;
Aaron Stimmel Jr., (724) 225-4302
R/C

DC Ultra Trax, 13 York Rd.,
Wycombe, PA 18974;
David Cowan, (215) 672-5200
R/C

D&D Hobby Shop, 305 3rd St.,
Rouseville, PA 16344; (814) 676-4475
R/C

Dreamboat Hobbies, 2810
Pennsylvania Ave. W., Warren, PA
16365; Louie Dussia, (814) 723-8052
R/C

Koontz's Home & Hobby Center,
1205 Hoover St., Pittsburgh, PA
15204; (412) 331-3866
R/C

Kranzel's R/C Raceway & Hobbies,
415-B Bosler Ave., Lemoyne, PA
17043; David or Stuart Kranzel,
(717) 737-7223
R/C

Little Plum R/C Hobbies, RR 1, Box
330, Lock Haven, PA 17455; Larry
Duck, (570) 769-1984
R/C

Lugnut Raceway, 1713 Bethlehem
Pike, Hatfield, PA 19440; Bill Henning
or Kathy Anderson,
(215) 822-5831
R/C

Mad-O Hobby Raceway, 850 Freedom
Cridler Rd., Freedom, PA 15042; Don
Goodrich, (724) 774-0240;
madohobby@forcomm.net
R/C

Marshall's R/C Raceway, RR 4, Box
640, Honesdale, PA 18431; Bill or Dot
Marshall, (570) 729-7458
R/C

McCullough's Offroad, 108 Callen Rd.,
Sarver, PA 16055; Doug McCullough,
(724) 352-0116; email:
DMCull323@aol.com
R/C

The Mushroom Bowl, 960 W. Cypress
St., Kennett Square, PA 19348;
Bruce or Drew, (610) 444-1850
R/C

Pinion Twisters, 3M Plant, Green Ln.
and Mitchell, Bristol, PA 19007;
Mark, (215) 632-2344
or Tony, (215) 742-3560
R/C

Pit Stop Hobbies, 262 W. Main St.,
Mount Joy, PA 17552;
James Stoudt Jr., (717) 653-6222
R/C

Prop & Wheels Raceway, 139 W.
Broad St., Tamaqua, PA 18252; Gil
Walters, Prop & Wheels Hobbies, (570)
668-2288
R/C

Racers Edge R/C Racing, RR#1, Box
271, Smethport, PA 16749; Rick
Morgan or Johna Simar, (814) 887-
2269; email: morg@penn.com;
web:users.penn.com/~morg/track.html
R/C

The Raceway at River Junction,
1216 4th St. (behind cemetery), Beaver,
PA 15009; (724) 728-5571
R/C

RC Ave. Raceway, 324 McKinley Ave.,
Latrobe, PA 15650; Scott Smith,
(412) 537-5501
R/C

RC Outfitters RCO Raceway, 519
Broadway, Hanover, PA 17331;
Chris Shaffer, (717) 633-9490;
http://rco.webjump.com
R/C

R/C Pro III, 910 Chestnut St.,
Coal Twp. (Shamokin), Shamokin, PA
17866; John Swisher,
(570) 648-7763
R/C

Riverside Raceway, Penna. Ave. W. &
Hickory, Warren, PA 16365;
Jeff, (814) 723-4211
R/C

S.A. Hi Banks, Hahn's Dairy Rd.,
Palmerston, PA 18071;
Scott Andrews, (610) 826-4583
R/C

Somerset Hobby Shop Outlet, 4309
Glades Pike, Somerset, PA 15501; Bob
Rhodes, (814) 445-6214
R/C

Staub Bros. R/C Speedway, 31 Locust
St., Gettysburg, PA 17325; Todd or
Scott Staub, (717) 334-5445
R/C

TnT Raceway, Randolph Rd., Great
Bend, PA 18821; Frenchie,
(607) 775-1750 or Ed Kraft,
(570) 967-2604
R/C

Trains & Lanes Raceway, 3825
Northwood Ave., Easton, PA 18045;
Jeff Setzer, (610) 253-8850,
(800) 447-4891
R/C

Willow Mill Speedway, 37 N. Season's
Dr., Dillsburg, PA 17019; George
Verbovitz, (717) 432-4445
R/C

World A.T.L.A.S./P.A.R.C.E. R/C
Raceway Hobby Shop & R/C Club,
Chester Exchange Mall, 10th & Morten
St., Chester, PA 19013; Darryl, Lee or
Marc, (610) 874-2540
R/C

PUERTO RICO

Area 51 On Road Track, Carr 931 KM
1.5, Bonavarró, Gurabo,
PR 00745; (787) 739-1572
R/C

Cidra R/C Track, Carr 7787 KM 1.6, Bo
Beatriz Adentro, Cidra, PR 00739;
Humberto (Tito) Lizardi,
(787) 739-1572
R/C

Dorado Offroad R/C Track, Pista
Atletica Bo. Higuillar, Dorado, PR
00646; Roberto Lamoso/Jaime Ramos,
(809) 796-5603 or (809) 796-1734
R/C

Hacienda Muñoz R/C Track,
Carr. #14, Juana Diaz, PR 00795;
(809) 837-7083
R/C

Hi-Speed C Raceways, 422 San
Claudio Ave., San Juan, PR 00926;
Carlos Ortiz, (787) 283-0198
R/C

Isabela R/C Track, 390 Sur Guaynabo,
PR 00969; Fernando Salcedo or Albaro
Obregon, (787) 720-1176
R/C

RHODE ISLAND

Tri-State R/C Raceway,
205 Hallene Rd., Warwick, RI 02886;
Raymond Dean, (401) 738-4908
R/C

SOUTH CAROLINA

Atlantic World of Hobbies,
2458 Remount Rd., North Charleston,
SC 29406;
Jimmy Closson, (843) 554-3546
R/C

Bethany Motor Speedway, 959
Wilmore Rd., Clover, SC 29710; Eddie
Spearmann, (803) 222-4758
R/C

Carolina R/C Speedway, 4148 Calhoun
Memorial Hwy., Easley, SC 29640;
Craig Prah, (864) 295-1209;
www.carolinarc.com; cprahlr@mind-
spring.com
R/C

Darlington R/C Raceway, Hobbies &
More, 1570 S. Main St., Darlington, SC
29532;
(843) 393-0355
R/C

Extreme R/C Raceway, 5976 Grace Ln.,
Myrtle Beach, SC 29577;
Kevin Bullock, (803) 236-2083
R/C

The Grove Racing Center, 939 S.
Anderson Rd., Rockhill, SC 29730;
Mike Durham or Don Faris,
(803) 327-4121
R/C

Hobbies and More, 1570 S. Main St.,
Darlington, SC 29532; Jerry Poillard,
(803) 393-0355
R/C

J&M R/C Hobbies, 5341 Dorchester
Rd., Evanston Plaza, N. Charleston, SC
29418; Mike Smith, (803) 552-9449
R/C

ORA Atomic Racing Facility, 373 Boyd
Pond Rd., Aiken, SC 29803; Bill
Jackson,
(706) 855-0846 or (803) 642-0314
R/C

The Racing Connection, 4375 Juniper
Bay Rd., Conway, SC 29527-4129;
Dave Hamilton, (843) 397-0124
R/C

Skateland USA, 202 Hwy. 29,
Anderson, SC 29621; Jon Fulmer, (864)
225-1840
R/C

SOUTH DAKOTA

Action R/C Raceway, 107 N. Main,
Mitchell, SD 57301; (605) 996-6895
R/C

Boomerangs Raceway, 105 N. Main,
Hartford, SD 57033;
Ed Smithback, (605) 528-7345
R/C

Dakota Off-Road Racers, 2989 W. Br.
Co. 12, Aberdeen, SD 57401; (605)
226-0604
R/C

Goldtrax Raceway, 409 E. High, Lead,
SD 57754; Steve Brown,
(605) 584-2355
R/C

Tri-State R/C Club, Sioux Empire Fair
Grounds, Sioux Falls, SD 57105; Chad
Walsh, (605) 357-9654; email: losi-
man@email.msn.com
R/C

R/C Action Raceway, SE Corner at
484th & Hwy. 38, Sioux Falls, SD
57105;
Brian Cox, (605) 373-0511
R/C

TENNESSEE

D&M's Downtown Raceway, 2703 U.S. Hwy. 411S, Maryville, TN 37303; (423) 681-8919



Futrell's R/C Hobby Shop, 1715 Jackson Ave., Seymour, TN 37865; Dan Futrell, (423) 908-9526



Hobby Town USA, 2000 Mallory Ln., Franklin, TN 37067; Bobby Mills, (615) 771-7441



Interstate Raceway, 5237 Highway 126, Blountville, TN 37617; Dale or Mark, (423) 323-1513; mkstarnz@intermediat.net



MID-South Racing Association, 9155 Hwy. 72 (Poplar Ave.), Germantown, TN 38138-7903; (901) 757-8774



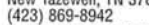
MSA Racing, 120 Villageway, Crossville, TN, 38555; D.R. Findley, (931) 456-0027



R & R Racing Portable Track, RR3, Box 34, Linden, TN 37096; Ross or Ron, (931) 589-5433



TnT Raceway, 643 Loop Hollow Rd., New Tazewell, TN 37825; Cliff Swett, (423) 869-8942



W.O.W. Raceway, 59 Luray Rd., Beech Bluff, TN 38313; Brad Jones, (901) 423-4784; email: womngr1@abac.com; http://go.to/wowracing



TEXAS

215 Speedway, 1814 County Rd. 215, Abilene, TX 79602; Clyde Gardner, (915) 673-2351



B&B R/C Hobbies, 700 East 4th, Big Spring, TX 79720; Walter Bumbulis, (915) 263-1790



Big Mike's R/C Raceway, 1405 W. Cotton St. (behind the Locker Room), Longview, TX 75604; (903) 297-7814



Comanche Trail RC Park, City Park, Big Spring, TX 79720; Allen Nichols, (915) 263-4241



Discount Hobbies, 1722A West Anderson Loop, Austin, TX 78757; Tony Bermudez, (512) 458-2324



Drycreek Raceway, 5903 Co. Rd. 2297, Quinlan, TX 75474; Micky Alphin, (903) 883-4060



Finish Line Raceway, 2775 N. Hwy. 360, Ste. 637, Grand Prairie, TX 75050; Steve Manning, (817) 652-3340



Hal's Hobby Raceway, 1440 Bessemer, El Paso, TX 79936; (915) 591-2213



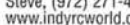
Hobbytown USA, 999 E. Basse Rd., Ste. 177, San Antonio, TX 78209; Joe Sena or Clark Baisdon, (210) 829-8697; fax (210) 829-8707



Hot Rod's Raceway, 4218 Boston Ave., Lubbock, TX 79413; Rodney, (806) 797-9964



Indy R/C World, 2020 Saturn Rd., Garland, TX 75041; Steve, (972) 271-4844; www.indyrcworld.com



Issa's Race Track, 18177 Gulf Frwy., Houston, TX 77598; Issac Ben-Ezra, (281) 488-8697



K & M Raceway Inc., 45000 Hwy. 59 N., New Caney, TX 77357; Brent Mahaffy, (281) 399-9777



MBRC Off-Road Raceway, 204 D&E Valley Ln., Kennedale, TX 76060; Mike Battaile, (817) 563-1900



Mammoth R/C Racing, 4221 Spencer, Pasadena, TX 77504; John, (713) 946-2522



Mike's Hobby Shop Superstore and Raceway, 1605 Crescent Cir., Carrollton, TX 75006; (972) 242-4930; www.mikeshobbyshop.com



Performance Raceway, 1106C Witte Rd., Houston, TX 77055; Jorge or Terry, (713) 464-4458



Rev It Up Raceway Practice Track, 3076 Kellar Rd., Smithville, TX 78957; Rev, Alton T. Edwards, (512) 237-5903



Rick's R/C Raceway, 238 Scenic Loop, Boerne, TX 78000; Rick, (210) 981-2245 or Rich, (210) 590-1805



The Rollcage, 3819 Hwy 34 South, Greenville, TX 75402; rollcage2000@earthlink.net; www.therollcage.com



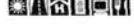
Star/Car Raceway, 5802 Patton St., Corpus Christi, TX 78415; Glen Stead, (512) 949-8525; Race Hotline, (512) 881-6105



T&M Raceway, 4150 Beltline Rd., Addison, TX 75244; (972) 478-2399



T&T R/C Cars, 3420 Ave. K., Suite 154, Plano, TX 75074; Joe Sullivan, (972) 633-2470



Texas Speedway, 6703 Chimney Rock, Bellaire, TX 77401; (713) 661-7137; www.TexasSpeedwayRC.com



T.Q. Offroad Raceway, 6236 Quail, El Paso, TX 79924; Eren Saenz, (915) 821-7522



Warehouse Radio Controlled Raceway, 5119 Plains Blvd., Amarillo, TX 79101; Craig or Darren Waddell, (806) 356-9080



W.E.S. Hobby Race, 980 S. Fourth St., Beaumont, TX 77701; Edmond Richards, (409) 839-4929



UTAH

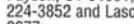
Intermountain R/C Raceway, 8481 W. 2700 S., Magna, UT 84044; David Mott, (801) 250-8303



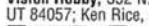
Hobby Haven Raceway, 4135 West 575 North, Cedar City, UT 84720; (435) 865-1274



Payson R/C Raceway, 955 S. Main, Payson, UT 84651; Gus Wood, (801) 224-3852 and Lasca Wood, (801) 222-8677



Vision Hobby, 352 N. State St., Orem, UT 84057; Ken Rice, (801) 226-6226

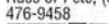


WOR R/C Raceway, 3170 Brinker Ave., Ogden, UT 84401; Brian Worton, (801) 393-2530



VERMONT

Barre Town R/C Club, 14 S. Main St., Wall St. Complex, Barre, VT 05641; Russ or Pete, (802) 888-2860 or (802) 476-9458



Bradford R/C Racing, Main St., Bradford, VT 05033; Seth Bean, (802) 222-9674



Empire Hobbies Off-Road Raceway, 272 North Main St., Saint Albans, VT 05478; Scott or Jen; (877) 4-HOBBIE; email: mpirhobe@togeth.net;



Stoughton Pond Raceway, Stoughton Pond Rd., Perkinsville, VT 05151; Rick Adams, (802) 263-9321

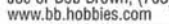


VIRGINIA

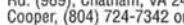
Brad's Hobbies, 1105 Greenville Ave., Staunton, VA 24401; Brad, (540) 885-3642



Brown Brothers Hobbies, 928 N. Main Street, Dumfries, VA 22026; Joe or Bob Brown, (703) 221-5746; www.bb.hobbies.com



Cooper's R/C Race Center, 4000 Sago Rd. (969), Chatham, VA 24531; Norris Cooper, (804) 724-7342 or (804) 724-4182; website: http://coopersrc.virtu-alave.net



DRCW Raceway, Debbie's RC World, 2200 Commerce Pkwy., Virginia Beach, VA 23454; Les Modlin, (757) 340-6681



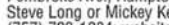
Gloucester Scale Hobbies, 2352 George Washington Memorial Hwy., Hayes Plaza, Hayes, VA 23072; Rob Thein, (804) 642-3484



Hampton RC Speedway, 1920 E. Pembroke Ave., Hampton, VA 23663; Steve Long or Mickey Kern, (757) 723-1884; website: www.fortunecity.com/olympia/norman/26/



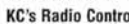
K & W Hobby and Sports, 5186 Nine Mile Rd., Richmond, VA 23223; Ross Martin, (804) 737-3904



KC's Radio Control & Repair, Rt. 4, Box 312, Trents Ferry Rd., Lynchburg, VA 24503; Curtis or Kim Wright, (804) 384-8596



Old Towne Hobby Shoppe, 9105 Center St., Manassas, VA 22110; Arnie Levine, (703) 369-1197



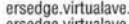
The Racer's Edge, 1230 West Main St., Danville, VA 24541; Al Harville, (804) 792-6011; email: webmaster@theracersedge.virtualave.net; http://theracersedge.virtualave.net



Roadmasters/ Rick's Hobbies, 12201 Balls Ford Ave., Manassas, VA 22110; Rick, (703) 330-6833



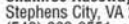
Shamroc Raceway, 106 Cheviot Pl., Stephens City, VA 22655; Scott Janow, (540) 869-3551; note: track is located in Winchester, VA



Thunder Road RC Racing, P.O. Box 1022, Troy, VA 22974-1022; James Palmer, (804) 589-8174



Thunder Road RC Speedway, 18079 James Madison Hwy, Gordonsville, VA 22947; Robert Bingle, (804) 296-6549; rwb3y@virginia.edu



The Tiltyard, 6994 Tiltyard Dr., Dayton, VA 22821; (540) 828-3476; www.tiltyard.com; tiltyard@rica.net

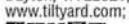


Trainlano R/C Racing, 5661 Shoulders Hill Rd., Suffolk, VA 23435; Frank Stevens, (757) 488-5454

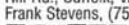


WASHINGTON

A-Main Raceway, 14011 N.E. 3rd Ct., Vancouver, WA 98685; Monty Coleman, (360) 571-8404



Bear Creek Raceway, 6319 Maltby Rd., Woodinville, WA 98072; Nathan Brockway, (425) 398-0140



Burien Toyota R/C, 15025 1st Ave. South, Seattle, WA 98148; Ray Meek, (800) 654-6456



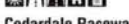
Cedardale Raceway, 1673 Cedardale Rd., Mount Vernon, WA 98273; Joe Madonia, (360) 659-0072; email: getchel@halcyon.com



Best's Hobbies, 2700 West College Ave., Appleton, WI 54914; Peggy, (920) 734-5244



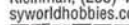
Dirt Heaven Hobby and Raceway, 6028 County Rd. K, New Franken, WI 54229; sales@dirt heaven.com; www.dirt heaven.com



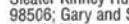
ABC R/C Inc. & Raceway, 244 W. Main St., Waukesha, WI 53188; Dick Mathiesen, (414) 542-1245; www.abchobby.com; email: help@abchobby.com



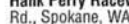
Fantasy World Raceway, 7901 S. Hosmer, Tacoma, WA 98408; Dave Kleinman, (253) 473-6223; www.fantasyworldhobbies.com



Four Seasons R/C Racing, 2941 Sleater Kinney Rd. N.E., Olympia, WA 98506; Gary and Sharon Brown, (360) 491-2430



Hank Perry Raceway, 1901 N. Sullivan Rd., Spokane, WA 99023; Thom Mullins, (509) 928-2009



Race City, 125 E. Main St., Auburn, WA 98002; Craig Haslebach, (253) 939-2515; trackside (253) 939-2515



Redmond Hobbies Raceway, 16290 Redmond Way, Redmond, WA 98052; Stan Ng, (425) 885-3639; http://redmondhobbies.com



Schmidt's Auto Parts, 10305 Smokey Point Blvd., Marysville, WA 98271; Jon, (360) 653-8838; schmidtsrcracing.com



Spokane Indoor Raceway, 6422 E. 2nd Ave., Spokane, WA 99212; Dave Mapston, (509) 534-RACE



Tacoma R/C Raceway, 6305 6th Ave., Tacoma, WA 98406; Scott Brown, (253) 565-1935



Rain City RC Raceway, 3616 South Rd., Suite A-3, Mukilteo, WA 98275; Peter, Andrew or Debbie, (425) 438-2454; lbauser@gte.net; www.raincityraceway.com



Ultimate R/C Raceway, 907 Cole St. #3, Enumclaw, WA 98022; Dan Daugherty, (360) 802-2388



West Coast Hobby & Raceway, 2239 Stevens Dr., Richland, WA 99352; Darren Shank, (509) 375-4995

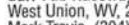


Zep's Hobbies & Raceway, 530 Interlake, Moses Lake, WA 98837; Steve Ralph, (509) 765-8191



WEST VIRGINIA

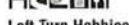
Burr-Fab Raceway, 90 Davis St., West Union, WV 26456; Mark Travis, (304) 873-2487



Fulton's R/C Raceway, 2646 Chapline St., Wheeling, WV 26003; James Fulton, (304) 233-5355



Left Turn Hobbies, 100 Saco Ln. (by Post Office), Glen White, WV 25849; Stretch, (304) 255-3930



Philippi Superspeedway, R. 1, Box 69A, Philippi, WV 26416; Eric, (304) 457-1438; Firehawk119@cs.com



Quiet Dell Raceway, Rt. 6, Box 1616, Fairmont, WV 26554; Darris, (304) 366-1441; Tateracing@aol.com

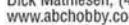


Race Zone, Hopewell Rd., Rt. 8, Box 343A, Fairmont, WV 26554; Joe Clutter, (304) 368-1000



WISCONSIN

ABC R/C Inc. & Raceway, 244 W. Main St., Waukesha, WI 53188; Dick Mathiesen, (414) 542-1245; www.abchobby.com; email: help@abchobby.com



Best's Hobbies, 2700 West College Ave., Appleton, WI 54914; Peggy, (920) 734-5244



Dirt Heaven Hobby and Raceway, 6028 County Rd. K, New Franken, WI 54229; sales@dirt heaven.com; www.dirt heaven.com



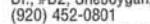
ABC R/C Inc. & Raceway, 244 W. Main St., Waukesha, WI 53188; Dick Mathiesen, (414) 542-1245; www.abchobby.com; email: help@abchobby.com



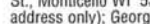
Gary's Hobby Center, 3701 Durand Ave., Racine, WI 53403; Bill Phalen, (414) 554-8884



Hobbytown USA - Revolution, Memorial Mall, 3347 Kohler Memorial Dr., #D2, Sheboygan, WI53081; Kenny, (920) 452-0801



MARCCA Raceways, 526 S. Monroe St., Monticello WI 53570 (mailing address only); George Sellon, (608) 243-1778; www.marcca.com



Mid-West Tri-Clone, 3745 Shuster, West Bend, WI 53095; Tom Holz, (414) 334-0429



Pro-Star Racing, 726 Pine St., Green Bay, WI 54301; Chuck, (920) 494-1233 or Terry, (920) 469-5566</

Fast n' Fun, 250 Potreath Rd., Bellbrae West, Torquay, VIC 3228; Stephen Chara, 613 5266 1550 or 613 5266 1556; fax 613 5266 1556



Illawarra RCECC, Croome Sporting Complex, Albion Park Rail, NSW 2527; Mel or Andrew, 042-714-683



Lakeside R/C Racing Car Club, Hollywood Rd., Lansvale, NSW 2166; R. Bartolozzi, 62-2-907-9800



Melton Electric Circuit Car Association, Safeway Car Park, corner High St. and Coburns Rd., Melton, VIC 3337; Arthur Joslin, 61-3-9747-8805



Northern Districts Model Rally Club, Inc., Rear Stanford Centre, 16 Stanford Way, Malaga, Western Australia 6066; G. Thirlwell, 61 (9) 249 3855; fax 61 (9) 249 4778; email tony@ois.com.au



Penfield Park, DSTO Complex Salisbury, Adelaide, South Australia 5108; Trevor Unsworth, 618 8289-5010



R.C. Speedway, 259 King St., Newcastle, NSW 2300; Andrew Dillon-Smith, 02-49265966



Templestowe Flat Track Racers, Templestowe Reserve, corner of Porter St. and Williamsons Rd., Templestowe, Melbourne, Victoria 31066; Renato Benci, 61 (3) 9553 4625



Wee Waa's Offroad RC, KYEEMA, Burien Junction, N.S.W. 2386; Shane, 61-02-6796-1339



Wodonga R/C Car Club, 11 Murphy St., Wodonga, VIC 3690; Ron Langman, 61-60-247-128



AUSTRIA

RMC-Wien, Aspernstrasse 5, Vienna, A-1220; Herbert Holze/Martin Hrzak, +43-664-4730376



BELGIUM

ATR-Alka-Tele-Racing, 3570 Stationstraat 21, Alken Limburg; 0032-11-25-49-03



Cartroubles Indoor Buggy Track, Jan Moonsstraat 52-56, 2160 Wommelgem; Guy Ermes, 32-3-326-51-15; fax 32-3-326-51-01



MBV-Kampenhout, Teniersln 28, Kampenhout B1910; Frank Mstorey, phone/fax 0-16-65-75-18



MRCZ, Centrum, De Burg; Montie, 75-71-63



Model Racing Club Oudenaarde, Scheidekant, 9700 Oudenaarde; A. Chanterie, 32-55-31-36-48; fax 32-55-30-19-12



R.C.R., Peilstraat 43, Retie 2470; A. Eelen, phone/fax 32-14-379685



BRAZIL

Amoc Cassociacao de Modelismo B. Cambario, Junto ao Par Que Ecologico de Bal. Cambario, Bal. Cambario, S.C. 88.330-000; Leo Cesar, (047) 366-0001



Brasilia R/C Motor Circuit, Estacionamento do Estadio Mane Guarrinchin, Brasilia, DF 70000; Alexandre (Alex), 55-061-273-7205



C.A.A.R. Curitiba Associacao de Automodelismo Radiocontrolado, Rua Theodoro Makioka, 2300 Santa Candida, Curitiba, PR 82650-530; Ronaldo Assumpcao, 55-41-354-2804



Electric Car Club R/C Santos, Av. Bernardino de Campos, 227, Santos, SP 11065-001; Estevam or Arnaldo, 55-013-232-2536



Hamilton Neto Associacao RC, Rua Uterere 259, Curitiba, Paran 80380-400; Danico Pilhax, 55-41-338-8041; hammer_usa@hotmail.com



Hobby Center, SQS 210 BLH Apt. 204, Brasilia, DF 70.273; 061-242-0488



Hobby Planet Racing Club, Rod Dom Pedro 1, KM 1315, Campinas, Sao Paulo 13091901; Daniel, Helio, Luciano, 019 258 2768



Jungle Drive, Rua Alberto Maranhao, No. 219 Icha do Gov. Rio de Janeiro, 21940-490; Paulo Brito, (021) 396-0851 or (021) 393-7449



MP Raceway, Av. Nacoes Unidas, 6815 Lapa, Sao Paulo; Gerd Heitrotter, 55-11-9819039; www.hpraceway.com.br



Off Roaders, Av. Guillermo Dummont Villars, 317, Sao Paulo, CEP 05640; Waldir Ielpo, (055) 011-260-5628; fax (055) 011-831-4931



Way of R/C Off-Road Cerrado, Rua Paraiiba 1323, 1st floor, Belo Horizonte, Minas Gerais; Claudio T. Correa, (031) 227-6111, fax (031) 227-6869



CANADA

Action Weelz, 462 Turcotte, Vanier, Quebec, G1M 1R6; Regent Tardif, (418) 527-5756



Advance R/C Raceway, 4181 Sheppard Ave. E., Scarborough, Ontario M1S 1T3; Albert Lau, (446) 321-8377



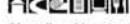
The All New R.C. World, 2633 Hwy. #6, Mt. Hope, Hamilton, Ontario L0R 1W0; Dave, (905) 765-2301, Larry, (905) 333-3297 or Brian, (519) 752-0044



ATN, Auto Teleguides Nicolet, 2000 Rue Paul Hubert, Saint-Jean-Baptiste-de-Nicolet, Quebec J3T 1E5; Louis Durand, (819) 293-6097



Auto Sprint, 6065 Des Grands Prairies, St. Leonard, Quebec H3G 2R6; David Kalayjian, (514) 287-3503



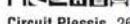
Blew Bye You Raceway, 134 Dike Rd., Chilliwack, British Columbia V2P 5B1; (604) 792-8978



Circuit J.C., 1283 Chemin, St. Philippe, St. Polycarpe, Quebec J0P 1X0; Jean Castellon, (514) 265-3675



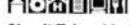
Circuit Pepsi, Centre de Location, 37 du Roi, Sorel, Quebec; (514) 746-8828



Circuit Plessis, 260 Rang 9 Ouest, Plessisville, Quebec G6L-2Y2; (819) 362-3743



Circuit R/C Pro, 1500 Chemin Sullivan, Val d'Or, Quebec; J9P 1M1; R/C Modeler Plus, (819) 874-3918



Circuit Teleguide St. Roch, 363-8 St. Charles, St. Roch De L'Achigan, Quebec J0K 3H0; (514) 588-4254, fax (514) 588-6554



Circuit Teleguide Grand Prix II, 701, Sainte-Rose, Ste. 200, Laprairie, Quebec, J5R 1Z2; (450) 444-1286



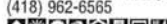
Club Auto Teleguides, 1750 Mile Interprovince, C.P. 35, Pointe-Fortune, Quebec, J0P0N0; Jacques St. Alevis, (514) 451-0078



Club Avati, 244 Jules-Richard, Deauville, Quebec JIN 3; Daniel Vanier, (819) 864-6262



Club RCSI, 44 Rue Holliday, Sept-Iles, Quebec G4R; Sylvio Gerard, (418) 968-6575; Hobby Shop, (418) 962-6565



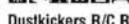
CRCCC, Box 309, Clinton, Ontario NOM 1L0; Eric Russell, (519) 482-9429



CTG, 450 Chemin de la Grand Ligne, Granby, Quebec; (514) 358-4419



CTL, 495 Industriel, Longueuil, Quebec; (514) 358-4419



Dustkickers R/C Raceway, 1785 Cypress Rd., Quesnel, British Columbia V2J 4B1; Darrell Dinsdale, (250) 747-2680



Dynamic Hobbies, 21 Concourse Gate, Unit 6, Nepean, Ontario, K2E7S4; Clark Freeman, (613) 225-9634



East Coast Model Center Raceway, 13 Glen Stewart Dr., Ste 1, Southport, Prince Edward Island C1A 8X9; Gary Stephen, (902) 569-3262



Fast-Trax Speedway, RR 4, Trenton, Ontario; Russ McPeak, (613) 394-6411



Fly'n Bryan's Radical Raceway & Little Shop of Hobbies, RR #1, Ste. 12, Comp. 49, Chase, British Columbia V0E 1M0; Bryan Coffey/Dani Potvin, (604) 955-0669



Gilles Comtois, 1458 Boul. Lafleche, Bale-Comeau, Quebec G5C 1E1; (418) 295-1830



Hobby 2000, 75 St.-Jean-Baptiste, Ste. 140, Chateaugay, Quebec J6J 3H6; Hugues-Andre Meloche, (450) 698-2000



Honda House Motor Speedway, 384 Richmond St., Chatham, Ontario N7M 1P9; John Elliot, (519) 354-5530



Interior R/C Raceway, 34-1605 Summit Dr., Kamloops, BC, V2E 2A5; Martin Vannieuwenhuizen, (604) 374-1268 or (604) 374-8458



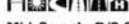
J-T International Raceway, 127 Milligan Ln., Nananee, Ontario K7R 8A1; N. O'Neill, (613) 354-0099



Leading Edge R/C Speedway, 731 Gardiners Rd., Kingston, Ontario K7M 3Y5; Mike and Tony Daicar, (613) 389-4878



Mid-Canada R/C Speedway, 216 Hutchings, Winnipeg, Manitoba R3H 0L3; Richard Driedger, (204) 339-6566



Miniatures & Passions, 204 St. Charles, #103, Ste. Therese, Quebec J7E 2 B4; Gilles Lachance, (514) 979-7989



Prince George Radio Controlled Car Club, 202 Explorer Cres., Prince George, B.C. Y2M5R8; Doug Waller, (604) 561-0035



Quintrax Speedway, 610 Dundas St. East, Belleville, Ontario K7K 2M1; (613) 962-1414; fax (613) 962-7306



Randy Shantz Raceway, 1015 W. 14th St., North Vancouver, British Columbia; Steve Mulhall, (604) 945-3888



R/C Champ Raceway, 670 Progress Ave., Rear Unit #13-16; Scarborough, Ontario M1H 3A4; Ben, Matthew or Louie, (416) 289-8717



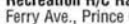
R.C. G.E.A.R.S., 87 Castlebrook Way NE, Calgary, Alberta T3J 2A7; Paul Parks, (403) 285-0170



Recreation R/C Raceway, Hwy. 16 and Ferry Ave., Prince George, BC; Doug Waller, (604) 561-0035



Ronbo's R/C Racing, R.R. 1, Glen Walter, Cornwall, Ontario K6H 3G4; Ron Giroux, (613) 936-0176



Rousillon Hobby Track, 177-D St. Jean Baptiste, Chateaugay, Quebec J6K 3B4; (514) 698-2151



Shadestree Raceway, R.R. #4, 22566 Stage Rd., Thamesville, Ontario; Darrin Charbonneau, (519) 692-5211



Snye Wreck RC, R.R. #1, St. Regis, Quebec H0M 1A0; Aimee Mitchell, (613) 575-2496



South Muskoka R.C. Track & Mini Putt, 8903 Hwy. 11, Orillia, Ontario L3V 6H3; Justin, (705) 329-0397



Spinnin Wheel Raceway, RR 1, Ariss, Ontario N0B 1B0; (519) 824-1614



South Okanagan Roadhogs, Skha Lake Rd., Penticton, BC; Willie Lemm, (604) 492-5698



Steeltown Speedway, 3580 Kirk Rd. West, Binbrook, Ontario L0R 1C0; Paul Snyder, (905) 227-7508



Sudbury Organized Auto Racing, 765 Barrydowne Rd., Sudbury, Ontario P3A 3T6; Ken Moore, (705) 524-5339



Thunder Alley Raceway, Lambton Mall, 1380 London Rd., Sarnia, Ontario N7S 1P8; Rob Smith, (519) 882-3361



Vancouver R/C Road Racers, #100-2733 Barney Hwy., Coquitlam, British Columbia V3E1K9; Roger Brown, (604) 945-3888



COLOMBIA

Club De Automodelismo Colombiano, Centro Recreativo Cafam, Kilometro 14 Autopista Norte, Santafe De Bogota, D.C.; Jorge Delgado, 1-6130588



Club De Automodelismo Colombiano, Centro Comercial Guaymaral, Kilometro 16 Autopista Norte, Santafe De Bogota, D.C.; Jorge Delgado, 1-6130588



Garoso Raceway, Avenida Libertadores con Diagonal Gran Colombia, Cucuta; Gabriel Rodriguez, 975-751892



CYPRUS

Racing Model Club, Kennedy Ave. N. 42, Nicosia; Andrea Sotiriou, 493186; fax 493229



DENMARK

Brondby Motor Club, Roskildevej 460 Brondby 2605; Soren Boy Holst, 45-36-472-462



Holstebro R/C Buggy Club, Mozartsvej 7500 Holstebro 2600; Michael Brusholt, 45-97-412-734



Klub 144 Raceway, Bagsvaerdvej 144A, 2800 Lyngby; Henrik Carstens, 45-42-88-3691



Rainbow Raceway, Eriksvej 9 Glostrup, Copenhagen 2600; P. Christiansen, 45-52-848-504



Thor Minirace Odense, Sohusevej 255, Allose, Odense, behind Alessio Hallen (Sport Centre), Odense; Ulrich Rasmussen, 45-65-303-707



DOMINICAN REP.

Adoca R/C Speedway, Feria Ganadera, Santo Domingo; (809) 220-5266



La Barranquita R/C International Speedway, Santiago; (809) 582-2303



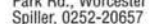
ECUADOR

Hobby Centro A.C.R.O. Club, Via a Turi Km O.S., Cuenca-Ecuador; Teddy Jaramillo, 593-7-831-289; fax 593-7-817082



ENGLAND

Chessington Radio Car Club, Surbiton Sport Club, Riverhill Estate, Worcester Park Rd., Worcester Park, Surrey; Ian Spiller, 0252-20657



Hampshire Racing Center, Viabes Craft Center, Basingstoke, Hampshire; Tony Eudola 44-1276-61402



Hinckley RCCC, Three Pots Inn, A5 Watling St., Hinckley, Leicestershire; Bruce, 0145

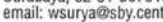
INDONESIA

1st Circuit, Kompleks Villa, Kalijuduh Indah, Surabaya; 62-31-5681965


Cipaku Indah Speedway, J1 Cipaku Indah II/2, Bandung 40143; Cipaku Indah Hotel, Erwin Lewi, 62-22-218-228, fax 62-22-210-223


Karinda Off-Road R/C Car Model Circuit, Perumahan Bumi Karang Indah, J1 Karang tengah Rayam lebak bulus, Jakarta-Selatan 12440; Wivied W. Soedarmadi, 62-21-7900878


Pondok Cabecircut, JL. Kunir No. 83, Pondok Cabe, Ciputat, Jakarta; Ali Agus Salim, 7403568-9; fax 7491533


Uno 168 Off Road Track, Wicaksono Suryatanto, Nginden Sernolo War 42, Surabaya; 62-31-5675133; email: wsurya@sby.centrin.net.id


Sentul World Hobbies, Citeureup Bogor Jawa Barat; International Circuit Hilton Hartanto, lan Sentul International Sirkuit, KM 42 62-21-751-2439


ISRAEL

Ircra Off-Road, Rahanana; Yaron Zafris, (972) 030549937


Nahshoneat, Abba Nile Silver Str. 64, Haifa 32809; Golan Levy, (972) 039386444 or (972) 04231252


Xlwakuni R/C Track, PSC 561, Box 798, FPO AP 96310-0978; David T. Eck, 81-6117-53-3662


Yokota R/C Racers, PSC #78, Box 3889, APO AP 96326, Tokyo; Donnie Leornas, 011-813-11-757-2012 or 001-813-11-755-2272


Zama Off-Road Raceway, 17th ASGCM Unit 45013, Box 3232, APO AP 96338; SFC Ken Campbell, 81-3117-63-8478


KUWAIT

Inferno DX 4WD Track, P.O. Box 9167, Ahadi 61002; Yousuf Acqatari


LEBANON

Wild Willy RCC, Oscar St-Jal Eddie, Beirut, 00961-4-403751


MALAYSIA

Titwangsa Raceway, Lot 128, Ampang Park, Shopping Centre, Jalan, Ampang, Kuala Lumpur 50450; R.A.C.E. Sdn Bhd., 03-2614496


Jump Square Arena, Al21, SG, Buloh N/V, 47000, SG, Buloh, Selanhor Thomson Chong, (603) 656-2513


MEXICO

Alces Off Road, Lopez Mateos y Rayod S/N, Ensenada, Baja California, Bay 22830; Jorge Bustamante, 667-6-1476, 61477, 86729


Baja Jr., H. Valdez 151 Pte. Y Gmo. Prieto, Los Mochis Sinaloa 81200; Memo Asencio, Gaby Macias, 681-20276; fax 681-26430


Club Kyosho de Automodelismo Departino, Av. Pacifico 216 Coyoacan; Ajusco-Toluca Km 15.3 DF 04330, Ing. Jorge Perez Holder, 525-544-08096; fax 525-544-7133


Cinamo Coca-Cola, Ruiz Cortines 620 Col. Central de Carga, Guadalupe, Nuevo Leon 67120; Sergio Garza, 83-35-70-09/79-32-33


Hobby Centro, 12 De Diciembre No. 3070-A, Guadalupe, JAL 45550; Alejandro Ortiz Del Toro, 36-21-46-28


Hobby's Formula, Au observatorio 457 DF 01120; 905-502-3620


Hobby Model's Raceway, Blvd. Garcia de Leon, 1555, Morelio, Michoacan 58260; 431-5-01-22


Jaguar R/C Club, Calz. Zavaleta 116, Puebla 72150; Chema, Denise or Chiro, 22-31-00-91, 22-33-00-94

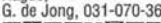

La Hielera, Prol Corregidora Nte 350, Queretaro, QRO C/P 76160; Jorge Morelos Rabelli, 42-12-15-25


Pista Casino, Hotel Casino de la Selva, Cuernavaca, Morelos 16507; Luis Duhart, 73-19-12-38


R/C Racing Club, Obsidiana #2900, Zapopan, Jalisco 44560; Fernando Hernandez, 3-616-73-47


Tony's Track, Obregon 364 Sur, Culicán Sinaloa; Guillermo Prieto, 67-165708-168141


NETHERLANDS

H.F.C.C. Hollandia, De Werf 60, The Hague; G. de Jong, 031-070-3679820


M.A.C. Vlymen, Hendriklaan 6, Vlymen; Ju Kasteren, 31-73-517906


NEW ZEALAND

Capital Model Racers, Avalon, Lower Hutt; Roger Whitmarsh, 04-566-5714

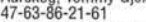

Counties R/C Raceway, Pukekohe Showgrounds, Station Rd., Pukekohe; R. Northcott, 09-23-86904


Harewood Radio Control Car Club, 550 Sawyers Arms Rd., Christ Church; Dean Johnson, 09-0-3880.344


Papakura Indoor R/C Car Club, 25 Tainere Cres., Papakura, Auckland; Colin Perry, 09-298-4711


Western District R/C Off-Road Car Club, CNV Bancroft/Akatea Drive, Auckland; Chris, 09-838-5201


NORWAY

Aurskog R/C Club, Aursmoen, 1930 Aurskog; Tommy Gjeleseth, 47-63-86-21-61


Dalen Raceway, P.B. 728, 6401 Molde; Johnny Reitan, 94 64 52 95


Hadeland Raceway, 2750 Gran, Gran; Dag Bakke-Nilssen, 61330405

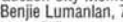

Store-Baller Raceway, 2750 Gran, Gran; Ola Raastad, 61330225


PHILIPPINES

Boyet R/C Hobby Shop, Unit No. 10 Lucas Commercial Center, Marcos Hwy., Decembaromot, Antipolo, Rizal; Jose "Boy" Chua, 721-2555


Philippine F1/Touring Club, Super Mall I, EDSA, Quezon City 1156; Raymond Aguilar/Ron Villafior, 896-64-15/23-30-08


Philippine R/C Association, B.F. Homes Paranaque, Metro Manila 1700; Ronald/Manny Villafior, 23-30-08


Quezon City Radio Control Club, Quezon City Memorial Cir., Quezon City; Benjie Lumanlan, 731-94-53


PORTUGAL

Aero Clube da Madeira, Rua do Castanheiro E-2, Funchal, Madeira; fax 091-221265


SOUTH AFRICA

Banana County R/C Racing Club, P.O. Box 988, Margate, 4275; Dennis Steenmans, 27-0-391-20975


Xtreme Raceway c/o Wannenburg & Dayan Rd., Dayan Glen, Boksburg, Gauteng; Anton, 083-442-4567; www.recycle.co.za; email: recycle@netactive.co.za


Frantic Raceway, Santam Plaza, Shop 16B, Welton; Wayne Roodt, phone/fax 27-57-35-72849


Gordons Bay R/C Club (GBRC), Andrew Norman Sports Centre, Gordons Bay, Cape Province; Andre Hollander, 024-512865


Lowveld Radio Control Thunderdrome, Lion's Club Kanyamazne Rd., Nelspruit, Eastern Transvaal; Martin Van Der Merwe, 01311-534-6415


Phoenix Raceway, 11 Tugela St., Stiffontein, Transvaal; Lionel Edwards, 018-4842863


Pick 'n' Pay Model Car Club, P.O. Box 11654, Klerksdorp 2570; H. Grobbs, (27) 18 46245421


Pietersburg Model Racing, Landros Marais St., Pietersburg, Northern Transvaal; Peter Van Vuuren, 0152-293-0700


R.C. Superbowl, Elsburg Sports Grounds, Elsburg, Johannesburg; Karl Fawcett, 27119076145


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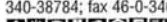

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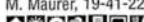
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Chris's BACK LOT

The opinions expressed on this page do not necessarily represent the opinions of the entire *Car Action* staff. Any resemblance to reality is purely coincidental. Send your correspondence, hate mail, love letters, photographs—anything you like—to Chris's Back Lot, c/o *R/C Car Action*, 100 East Ridge, Ridgefield, CT 06877-4606. My email address is: chris@airage.com.

BY CHRIS CHIANELLI

Take the Indoor Tour

As you read this, more than half the country is in a deep freeze or snowed in—or both. Not the best conditions for outdoor fun—unless, of course, you're a penguin. Hmmmm ... RC racer penguins? I like it! Then again, it would be kind of hard to operate a throttle trigger with that flipper/wing thing they have. Anyway, for those of you who are lucky enough to live in a year-round-racing part of the country: this "Back Lot" isn't for you—but you can go ahead and look at it anyway. (MY PAGE!) However, this page does apply to those of you in tropical regions who are waiting out the monsoon season.

OK; it's cold and nasty (or hot and sloppy) outside, it's going to stay that way for many more weeks, and you've run out of indoor activities. You've rebuilt and maintenance'd all your vehicles three times, you've read the latest issue of *RC Car Action* five times (and "Back Lot" 10 times), and, "Mystery Science Theater" has been cancelled. So, what to do?

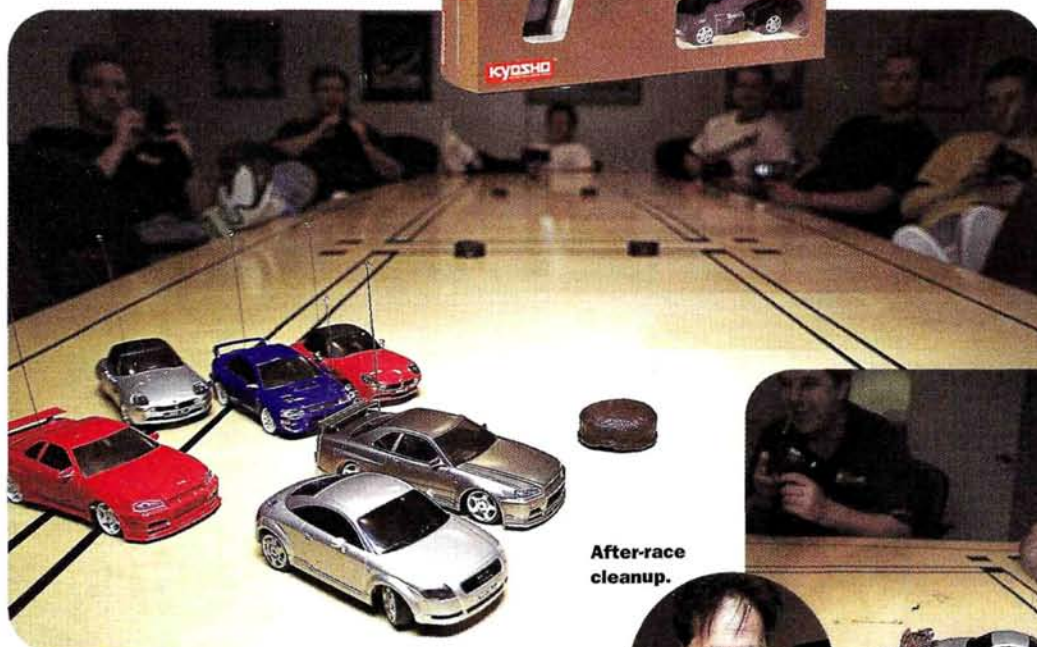
With radio equipment—all RC stuff, in fact—getting smaller and smaller, there's



Above: the Porsche GT3 is the latest addition to the Mini-Z lineup. Below: the Mini-Z all-in-one package; it even includes corner dots and cones (although we prefer Ring Dings).



Above: I say the turn-marshall duck is the smartest one in this photo. Left: executive fun at the RC Car Action conference room table. Yes, that's me at the head of the table. Below: Steve is shouting with glee, "Chris, you're right about RC cars—and life in general. It's true!—you can have RC fun indoors."



After-race cleanup.



lots to do indoors these days. Just look around. Now, a $1/24$ -scale RC car is nothing new, but Kyosho has really brought the product to new heights of user-friendliness with the Mini-Z line; hop-ups are even available.

To make a long story short, one day, some of the other editors came into my office to complain about how bored they were because it was so lousy outside. "Homer" Hetmanski

Hmmm ... indoor tour? I'm confused ... does it come with fries?

was particularly whiny; he even stamped his foot at me and said, "Come on, Chris! You're smart—think of something!" So I decided to help him and the rest of the guys out. Here's what we did.

Next time, we might try indoor RC flying. Yes, there truly is such a thing. Don't miss it—this will be a good one. You can bet this menagerie of morons will be flying their RC models into their own heads. I love these guys. ■

